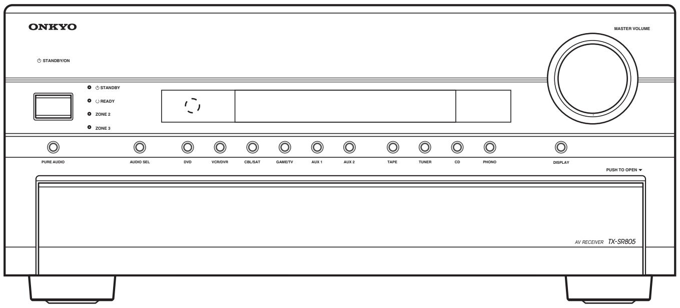
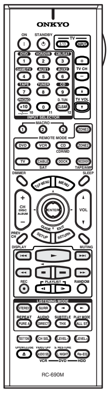
Ref. No. 3994
052007

ONKYO SERVICE MANUAL

AV RECEIVER

MODEL TX-SR805
MODEL TX-SA805


ONKYO
STANDBY/ON
STANDBY
READY
ZONE 2
ZONE 3
MASTER VOLUME
PURE AUDIO
AUDIO SEL
DVD
VCR/DVR
CBL/SAT
GAME/TV
AUX 1
AUX 2
TAPE
TUNER
CD
PHONO
DISPLAY
PUSH TO OPEN
AV RECEIVER TX-SR805


ONKYO
RC-690M

RC-690M

TX-SR805 Black, Golden and Silver models

B UDC, S UDC, B MDC, S MDC G UDT, G MDT	120V AC, 60Hz
B UMP, S UMP, B MMP, S MMP B MMA, S MMA, B MMA, S MMA	220-240V AC, 50Hz
G UMK, G UMQ, G UMT G MMK, G MMQ, G MMT	220-240V AC, 50/60Hz

TX-SA805 Golden models

G UMR, G MMR	220-240V AC, 50/60Hz

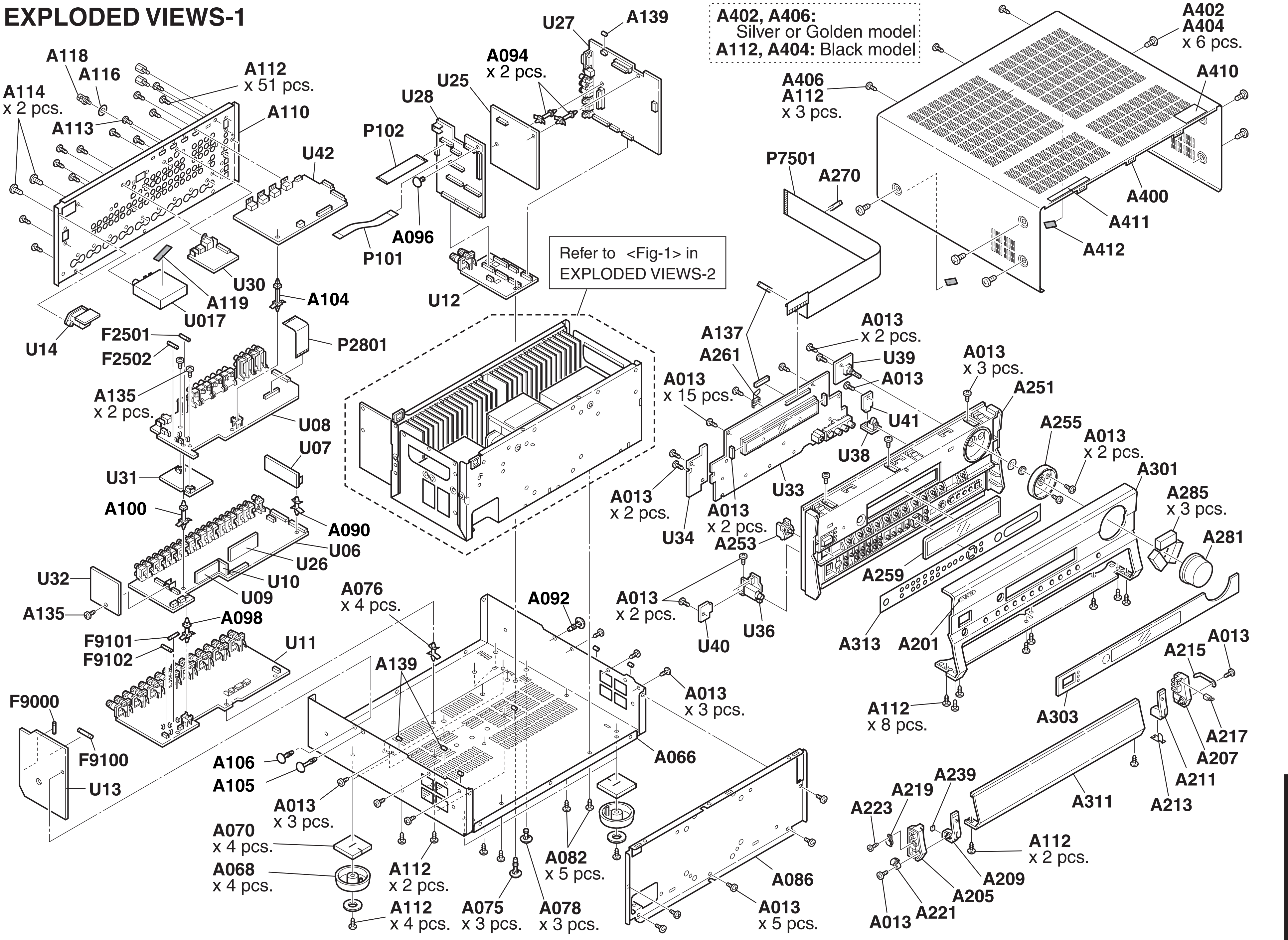
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

ONKYO®
IMAGINATIVE SIGHT & SOUND

EXPLODED VIEWS-1



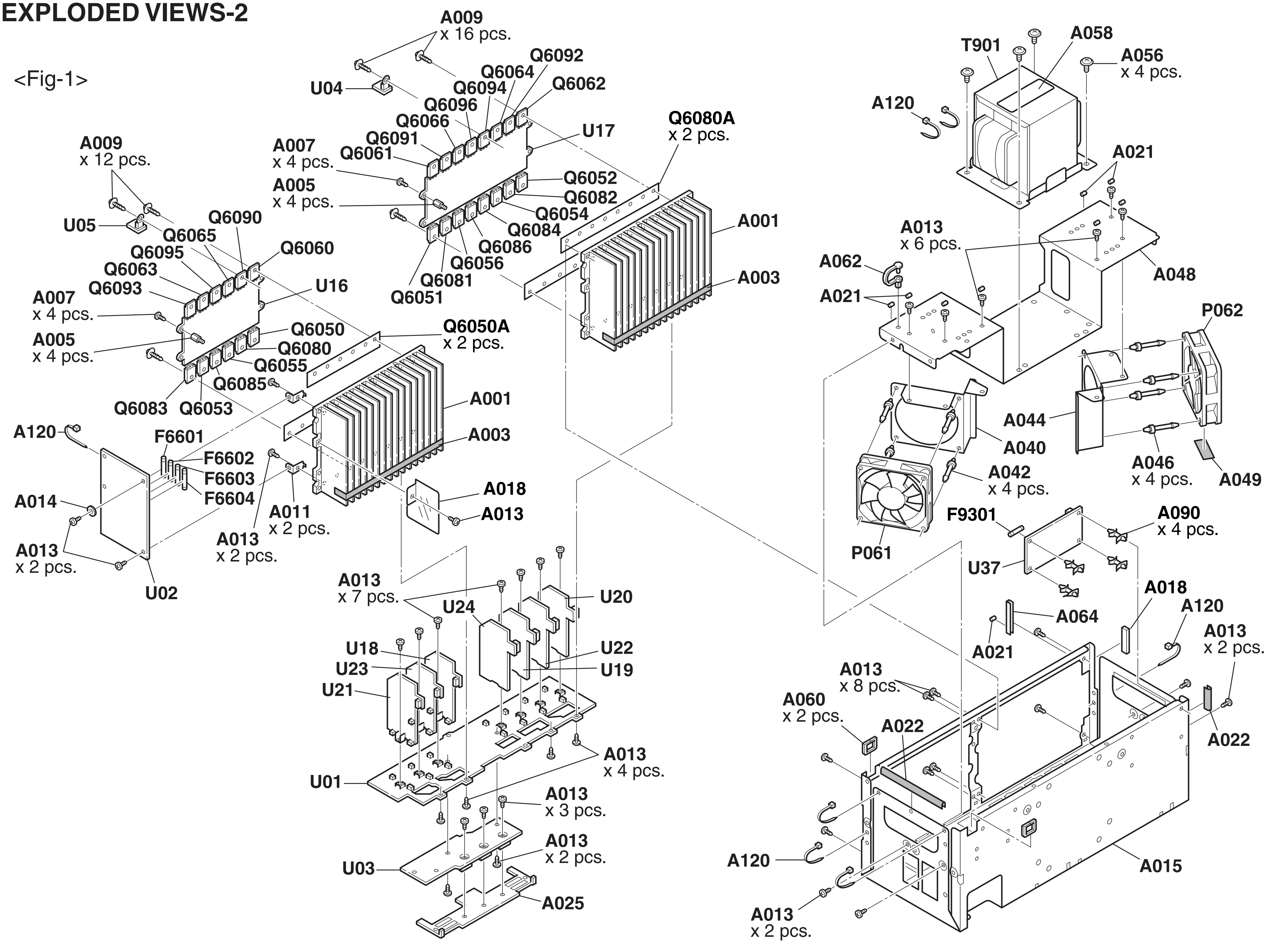
A402, A406: Silver or Golden model
A112, A404: Black model

Refer to <Fig-1> in
EXPLODED VIEWS-2

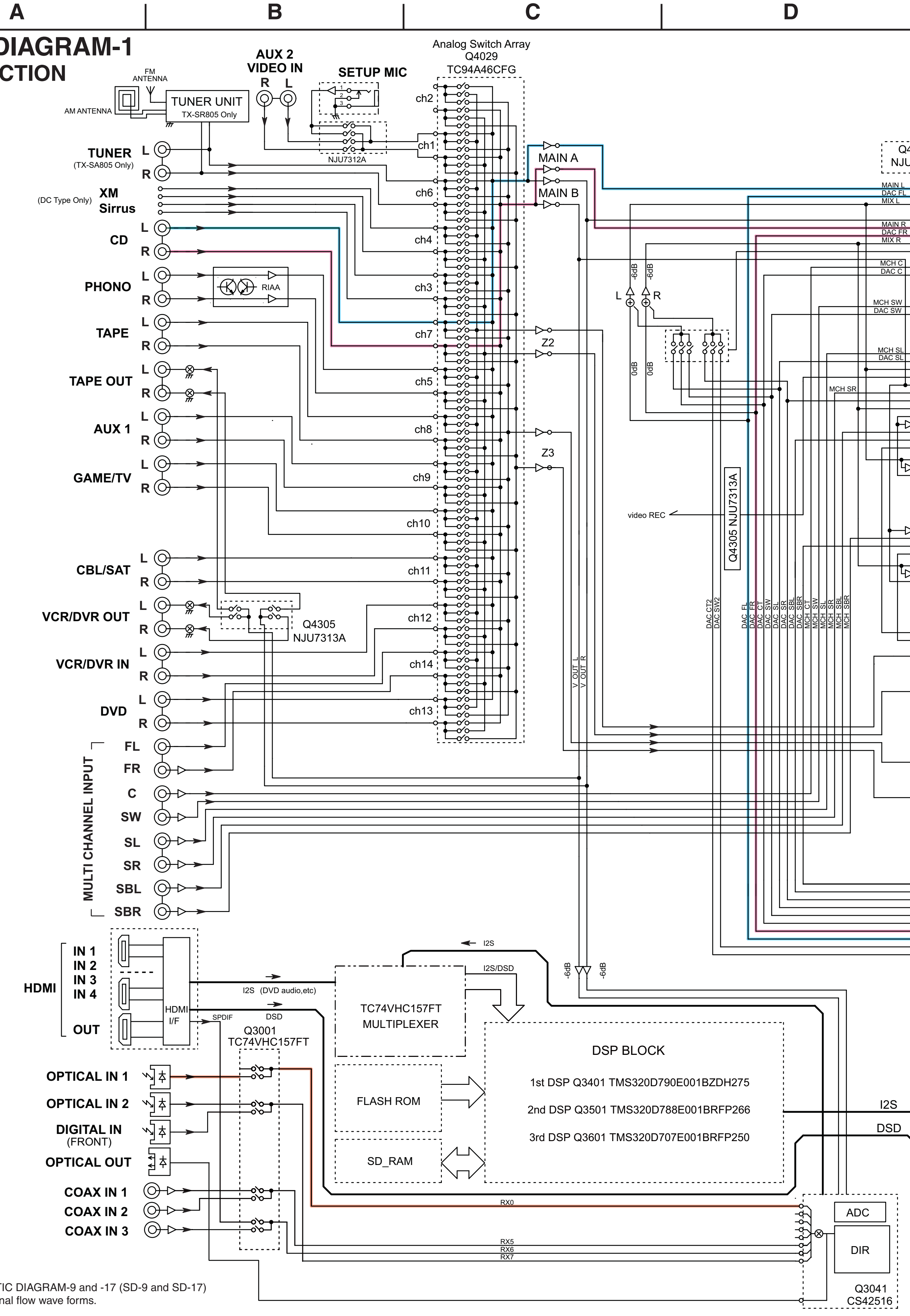
A118
A116
A114
x 2 pcs.
A113
A112
x 51 pcs.
A110
U42
U30
A119
U017
U14
F2501
F2502
A135
x 2 pcs.
U08
U31
A100
A090
U06
U26
U10
U09
U32
A135
A098
F9101
F9102
U11
F9000
F9100
U13
U27
A139
A094
x 2 pcs.
U25
U28
P102
A096
P101
U12
A104
P2801
U07
A076
x 4 pcs.
A139
A092
A106
A105
A013
x 3 pcs.
A070
x 4 pcs.
A068
x 4 pcs.
A112
x 2 pcs.
A112
x 4 pcs.
A075
x 3 pcs.
A078
x 3 pcs.
A082
x 5 pcs.
A066
A013
x 3 pcs.
A086
A013
x 5 pcs.
A402
A404
x 6 pcs.
A406
A112
x 3 pcs.
A410
A400
A411
A412
P7501
A270
A137
A261
A013
x 15 pcs.
A013
x 2 pcs.
U39
A013
U41
U38
U33
A013
x 2 pcs.
U34
A013
x 2 pcs.
A253
A013
x 2 pcs.
U40
U36
A013
x 3 pcs.
A251
A255
A013
x 2 pcs.
A301
A285
x 3 pcs.
A281
A259
A313
A201
A215
A013
A112
x 8 pcs.
A303
A217
A207
A211
A213
A311
A239
A219
A223
A112
x 2 pcs.
A209
A205
A221
A013

EXPLODED VIEWS-2

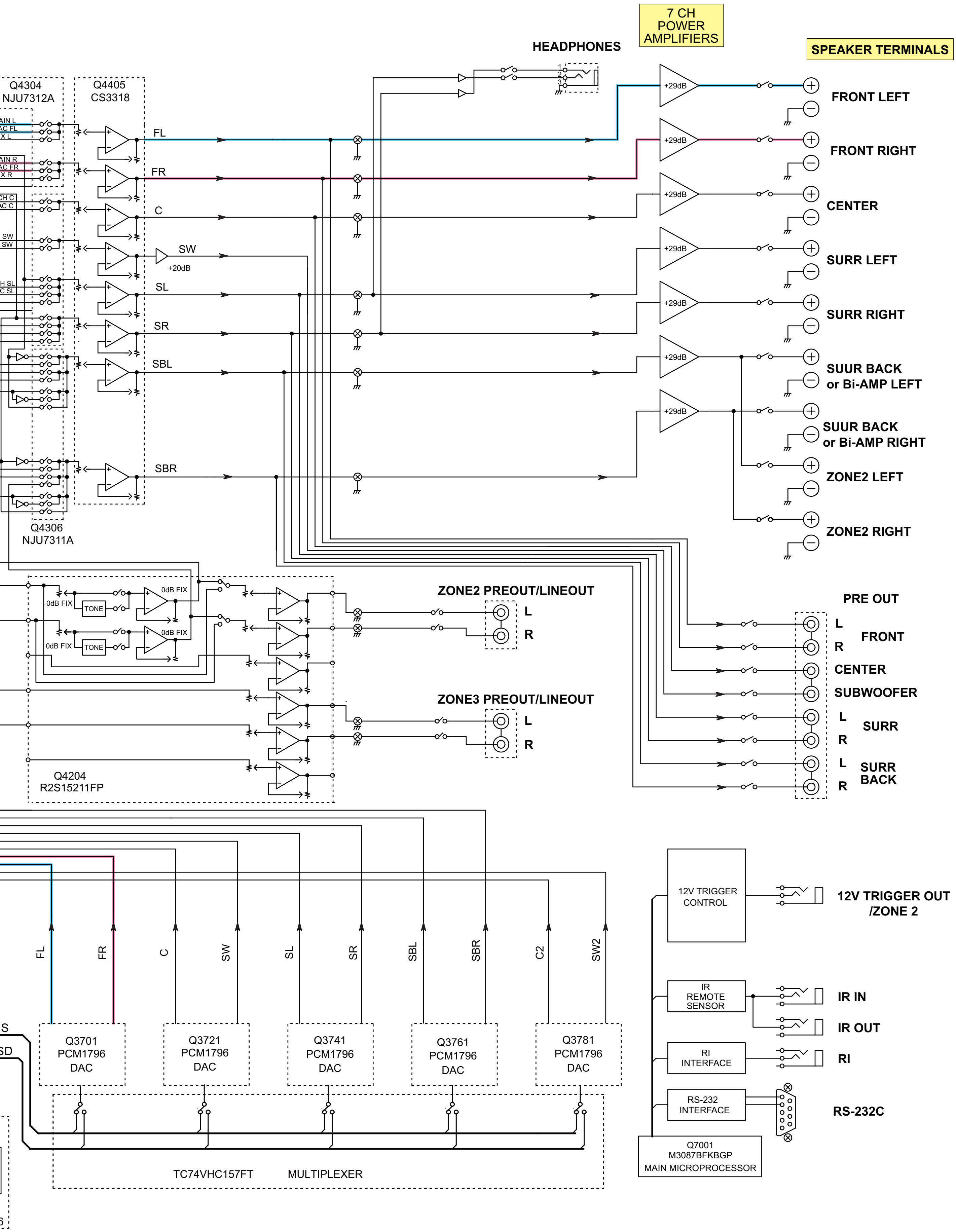
<Fig-1>


A009
x 16 pcs.
U04
Q6092
Q6064
Q6062
Q6094
Q6096
Q6066
Q6091
Q6061
U17
A007
x 4 pcs.
A005
x 4 pcs.
Q6052
Q6082
Q6054
Q6084
Q6086
Q6056
Q6081
Q6051
Q6080A
x 2 pcs.
A001
A003
A009
x 12 pcs.
U05
Q6065
Q6090
Q6095
Q6060
Q6063
Q6093
U16
A007
x 4 pcs.
A005
x 4 pcs.
Q6050
Q6080
Q6055
Q6085
Q6083
Q6053
Q6050A
x 2 pcs.
A001
A003
A120
F6601
F6602
F6603
F6604
A014
A013
x 2 pcs.
U02
A013
x 2 pcs.
A011
x 2 pcs.
A018
A013
A013
x 7 pcs.
U24
U20
U18
U23
U21
U22
U19
U01
A013
x 4 pcs.
A013
x 3 pcs.
A013
x 2 pcs.
U03
A025
T901
A058
A056
x 4 pcs.
A120
A021
A013
x 6 pcs.
A062
A048
A021
P062
A044
A040
A046
x 4 pcs.
A049
A042
x 4 pcs.
P061
F9301
A090
x 4 pcs.
U37
A018
A064
A021
A120
A013
x 2 pcs.
A013
x 8 pcs.
A060
x 2 pcs.
A022
A022
A120
A015
A013
x 2 pcs.

BLOCK DIAGRAM-1
AUDIO SECTION

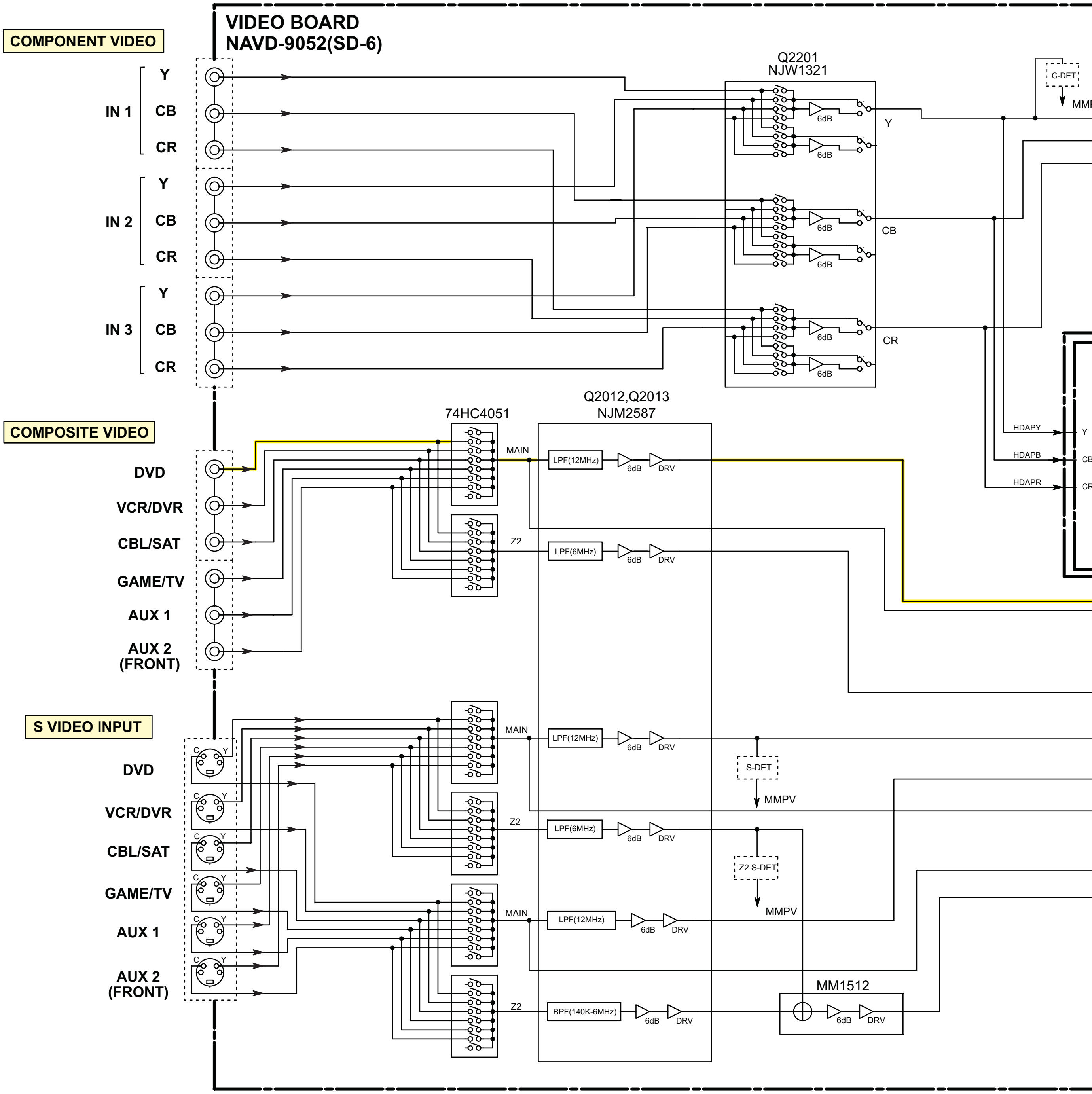

A
B
C
D
1
2
3
4
5
FM ANTENNA
AM ANTENNA
TUNER UNIT
TX-SR805 Only
AUX 2
VIDEO IN
R L
SETUP MIC
NJU7312A
Analog Switch Array
Q4029
TC94A46CFG
ch2
ch1
ch6
ch4
ch3
ch7
ch5
ch8
ch9
ch10
ch11
ch12
ch14
ch13
TUNER
(TX-SA805 Only)
L
R
(DC Type Only)
XM
Sirrus
CD
PHONO
RIAA
TAPE
TAPE OUT
AUX 1
GAME/TV
CBL/SAT
VCR/DVR OUT
Q4305
NJU7313A
VCR/DVR IN
DVD
MULTI CHANNEL INPUT
FL
FR
C
SW
SL
SR
SBL
SBR
MAIN A
MAIN B
Z2
Z3
-6dB
0dB
video REC
Q4305 NJU7313A
V_OUT_L
V_OUT_R
DAC CT2
DAC SW2
DAC_FL
DAC_FR
DAC_CT
DAC_SW
DAC_SL
DAC_SR
DAC_SBL
DAC_SBR
MCH_CT
MCH_SW
MCH_SL
MCH_SR
MCH_SBL
MCH_SBR
MAIN L
DAC FL
MIX L
MAIN R
DAC FR
MIX R
MCH C
DAC C
MCH SW
DAC SW
MCH SL
DAC SL
MCH SR
HDMI
IN 1
IN 2
IN 3
IN 4
OUT
HDMI I/F
I2S (DVD audio,etc)
SPDIF
DSD
I2S
I2S/DSD
TC74VHC157FT
MULTIPLEXER
Q3001
TC74VHC157FT
FLASH ROM
SD_RAM
DSP BLOCK
1st DSP Q3401 TMS320D790E001BZDH275
2nd DSP Q3501 TMS320D788E001BRFP266
3rd DSP Q3601 TMS320D707E001BRFP250
I2S
DSD
OPTICAL IN 1
OPTICAL IN 2
DIGITAL IN
(FRONT)
OPTICAL OUT
COAX IN 1
COAX IN 2
COAX IN 3
RX0
RX5
RX6
RX7
ADC
DIR
Q3041
CS42516

<Note>
Refer to SCHEMATIC DIAGRAM-9 and -17 (SD-9 and SD-17)
for digital audio signal flow wave forms.


7 CH
POWER
AMPLIFIERS
HEADPHONES
SPEAKER TERMINALS
Q4304
NJU7312A
Q4405
CS3318
FL
FR
C
SW
+20dB
SL
SR
SBL
SBR
+29dB
FRONT LEFT
FRONT RIGHT
CENTER
SURR LEFT
SURR RIGHT
SUUR BACK
or Bi-AMP LEFT
SUUR BACK
or Bi-AMP RIGHT
ZONE2 LEFT
ZONE2 RIGHT
Q4306
NJU7311A
0dB FIX
TONE
ZONE2 PREOUT/LINEOUT
ZONE3 PREOUT/LINEOUT
L
R
Q4204
R2S15211FP
PRE OUT
L
R
FRONT
CENTER
SUBWOOFER
L
R
SURR
L
R
SURR
BACK
FL
FR
C
SW
SL
SR
SBL
SBR
C2
SW2
Q3701
PCM1796
DAC
Q3721
PCM1796
DAC
Q3741
PCM1796
DAC
Q3761
PCM1796
DAC
Q3781
PCM1796
DAC
TC74VHC157FT
MULTIPLEXER
12V TRIGGER
CONTROL
12V TRIGGER OUT
/ZONE 2
IR
REMOTE
SENSOR
IR IN
IR OUT
RI
INTERFACE
RI
RS-232
INTERFACE
RS-232C
Q7001
M3087BFKBGP
MAIN MICROPROCESSOR

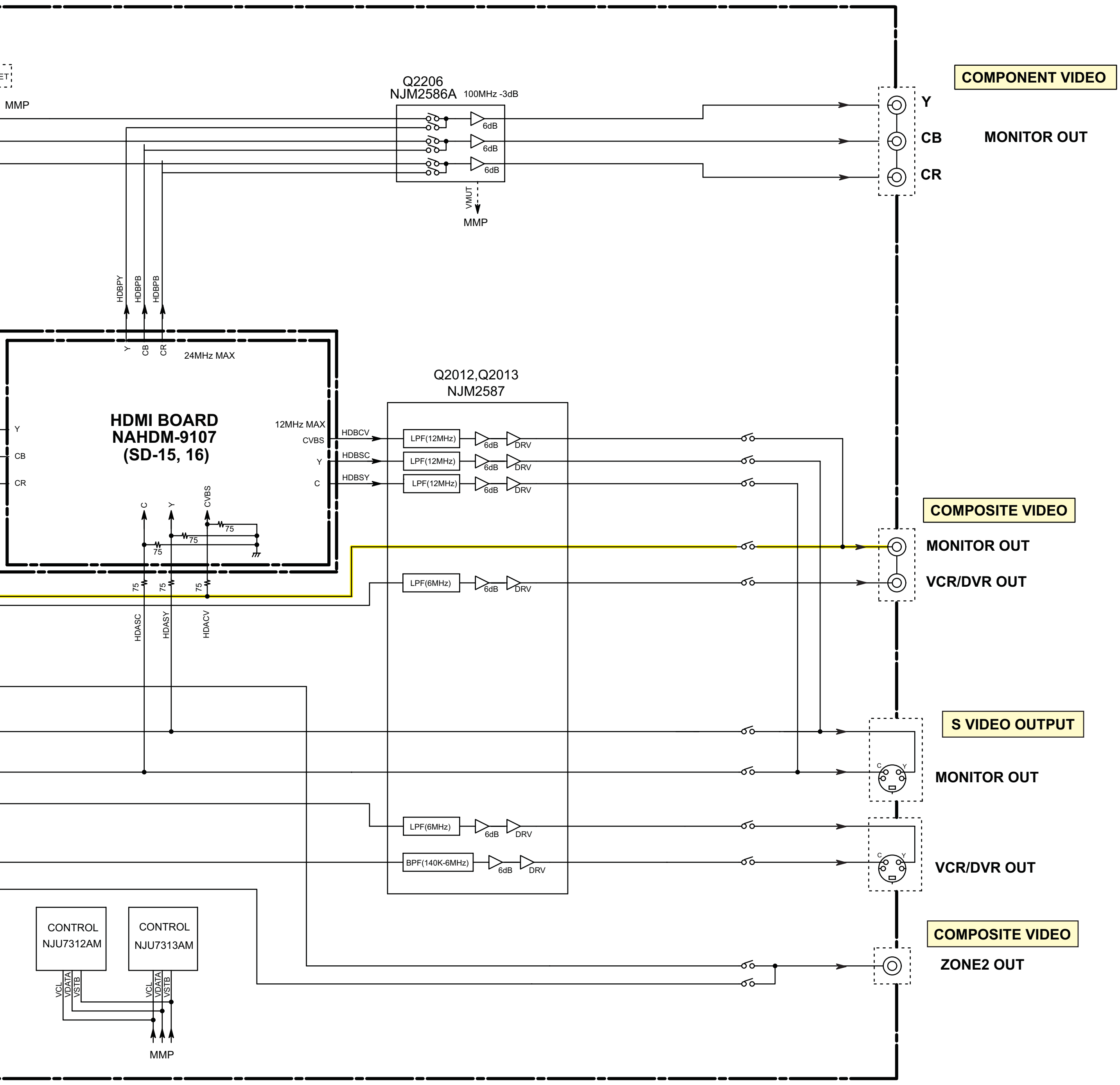
BLOCK DIAGRAM-2

VIDEO SECTION


VIDEO BOARD
NAVD-9052(SD-6)
COMPONENT VIDEO
IN 1
IN 2
IN 3
Y
CB
CR
Q2201
NJW1321
6dB
Y
CB
CR
C-DET
MMP
HDAPY
HDAPB
HDAPR
Y
CB
CR
COMPOSITE VIDEO
DVD
VCR/DVR
CBL/SAT
GAME/TV
AUX 1
AUX 2
(FRONT)
74HC4051
Q2012,Q2013
NJM2587
MAIN
Z2
LPF(12MHz)
LPF(6MHz)
6dB
DRV
S VIDEO INPUT
DVD
VCR/DVR
CBL/SAT
GAME/TV
AUX 1
AUX 2
(FRONT)
C
Y
S-DET
MMPV
Z2 S-DET
MMPV
BPF(140K-6MHz)
MM1512

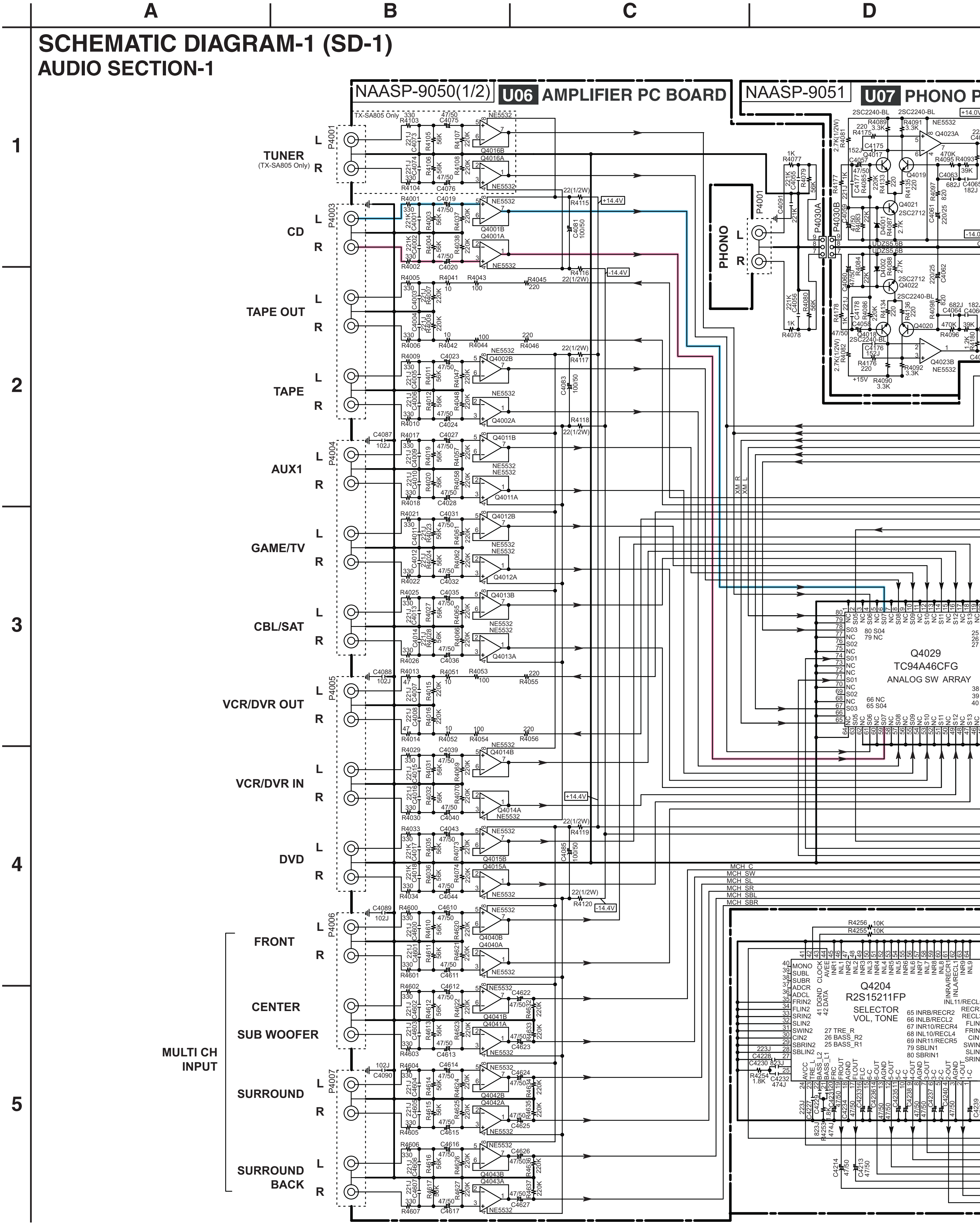
NOTE
MMP is short for MAIN MICROPROCESSOR.

<Note>
Refer to SCHEMATIC DIAGRAM-6, -15 and -17 (SD-6, SD-15 and SD-17)
for video and HDMI signal waveforms.


MMP
Q2206
NJM2586A
100MHz -3dB
6dB
6dB
6dB
VMUT
MMP
COMPONENT VIDEO
Y
CB
CR
MONITOR OUT
HDBPY
HDBPB
HDBPB
Y
CB
CR
24MHz MAX
HDMI BOARD
NAHDM-9107
(SD-15, 16)
Y
CB
CR
12MHz MAX
CVBS
Y
C
C
Y
CVBS
75
75
75
75
75
75
HDASC
HDASY
HDACV
Q2012,Q2013
NJM2587
HDBCV
HDBSC
HDBSY
LPF(12MHz)
LPF(12MHz)
LPF(12MHz)
6dB
DRV
LPF(6MHz)
LPF(6MHz)
BPF(140K-6MHz)
COMPOSITE VIDEO
MONITOR OUT
VCR/DVR OUT
S VIDEO OUTPUT
C
Y
MONITOR OUT
VCR/DVR OUT
COMPOSITE VIDEO
ZONE2 OUT
CONTROL
NJU7312AM
CONTROL
NJU7313AM
VCL
VDATA
VSTB
MMP

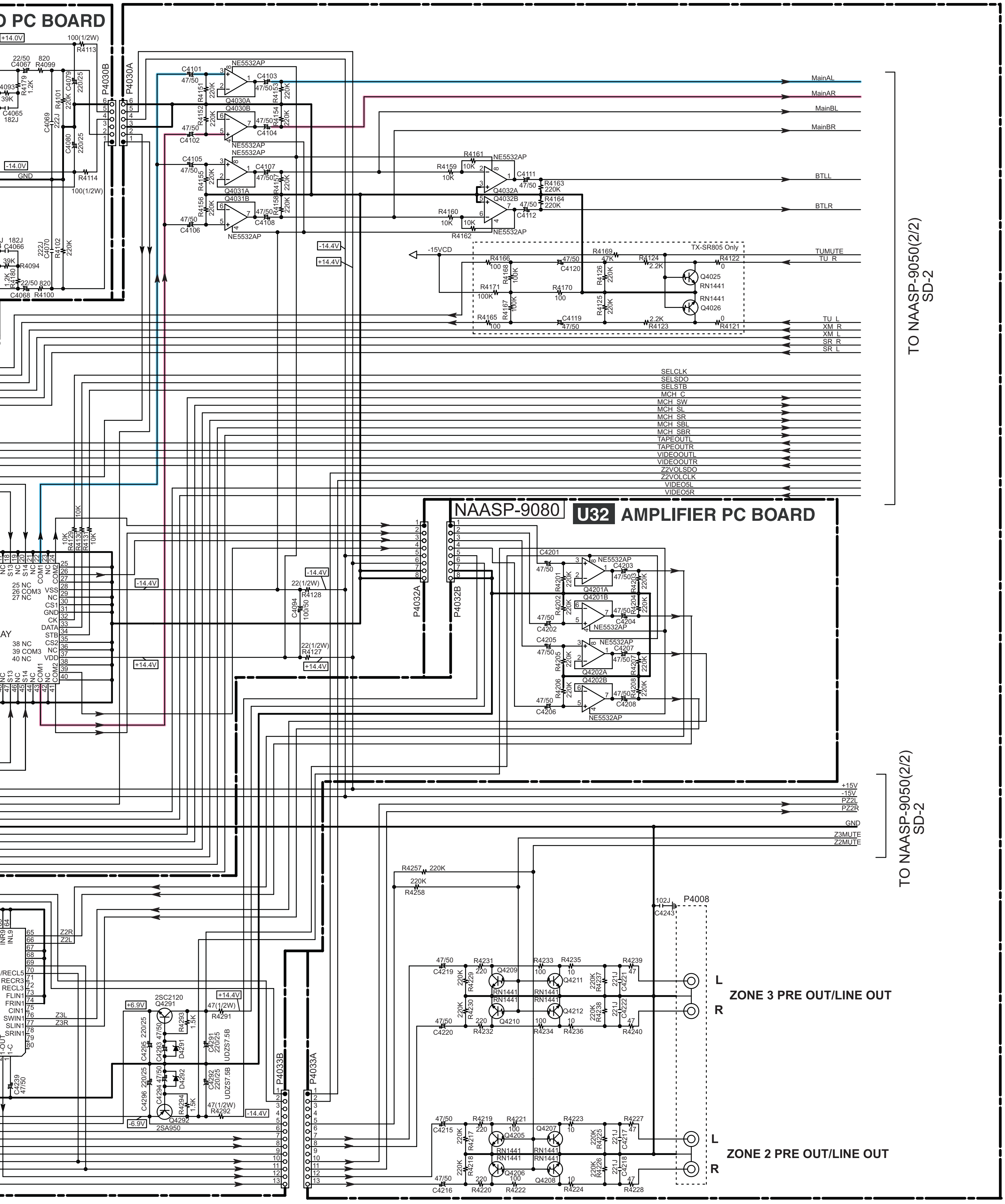
SCHEMATIC DIAGRAM-1 (SD-1)

AUDIO SECTION-1


A
B
C
D
1
2
3
4
5
NAASP-9050(1/2)
U06 AMPLIFIER PC BOARD
NAASP-9051
U07 PHONO P
TUNER
(TX-SA805 Only)
TX-SA805 Only
CD
TAPE OUT
TAPE
AUX1
GAME/TV
CBL/SAT
VCR/DVR OUT
VCR/DVR IN
DVD
FRONT
CENTER
SUB WOOFER
MULTI CH INPUT
SURROUND
SURROUND BACK
PHONO
L
R
P4001
P4003
P4004
P4005
P4006
P4007
P4030A
P4030B
NE5532
Q4029
TC94A46CFG
ANALOG SW ARRAY
Q4204
R2S15211FP
SELECTOR
VOL, TONE
+14.4V
-14.4V
+14.0V
+15V
MCH_C
MCH_SW
MCH_SL
MCH_SR
MCH_SBL
MCH_SBR
XM_R
XM_L

E F G H

<Note>
SD-x:XY is short for Shcematic Diagram-x and
each socket's location, X=A to H, Y=1 to 5.



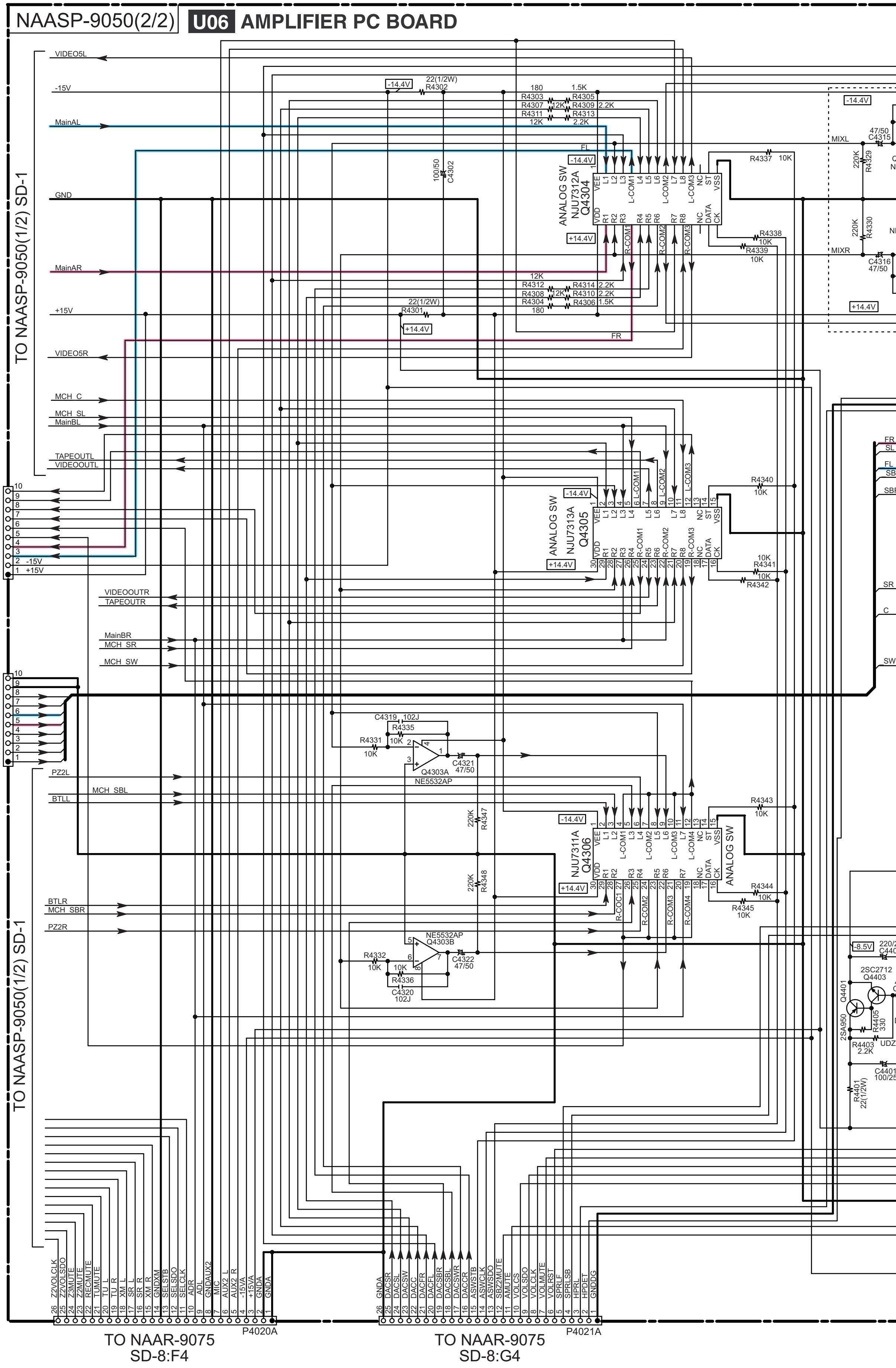
D PC BOARD
P4030B
P4030A
NE5532AP
Q4030A
Q4030B
Q4031A
Q4031B
Q4032A
Q4032B
MainAL
MainAR
MainBL
MainBR
BTLL
BTLR
-15VCD
TX-SR805 Only
TUMUTE
TU_R
TU_L
XM_R
XM_L
SR_R
SR_L
Q4025
Q4026
RN1441
SELCLK
SELSDO
SELSTB
MCH_C
MCH_SW
MCH_SL
MCH_SR
MCH_SBL
MCH_SBR
TAPEOUTL
TAPEOUTR
VIDEOOUTL
VIDEOOUTR
Z2VOLSDO
Z2VOLCLK
VIDEO5L
VIDEO5R
TO NAASP-9050(2/2) SD-2
NAASP-9080
U32
AMPLIFIER PC BOARD
P4032A
P4032B
Q4201A
Q4201B
Q4202A
Q4202B
+14.0V
-14.0V
GND
-14.4V
+14.4V
+15V
-15V
PZ2L
PZ2R
GND
Z3MUTE
Z2MUTE
TO NAASP-9050(2/2) SD-2
P4008
Q4209
Q4210
Q4211
Q4212
ZONE 3 PRE OUT/LINE OUT
L
R
Q4205
Q4206
Q4207
Q4208
ZONE 2 PRE OUT/LINE OUT
L
R
P4033B
P4033A
2SC2120
Q4291
2SA950
Q4292
D4291
D4292
UDZS7.5B
+6.9V
-6.9V
Z2R
Z2L
Z3L
Z3R

A B C D

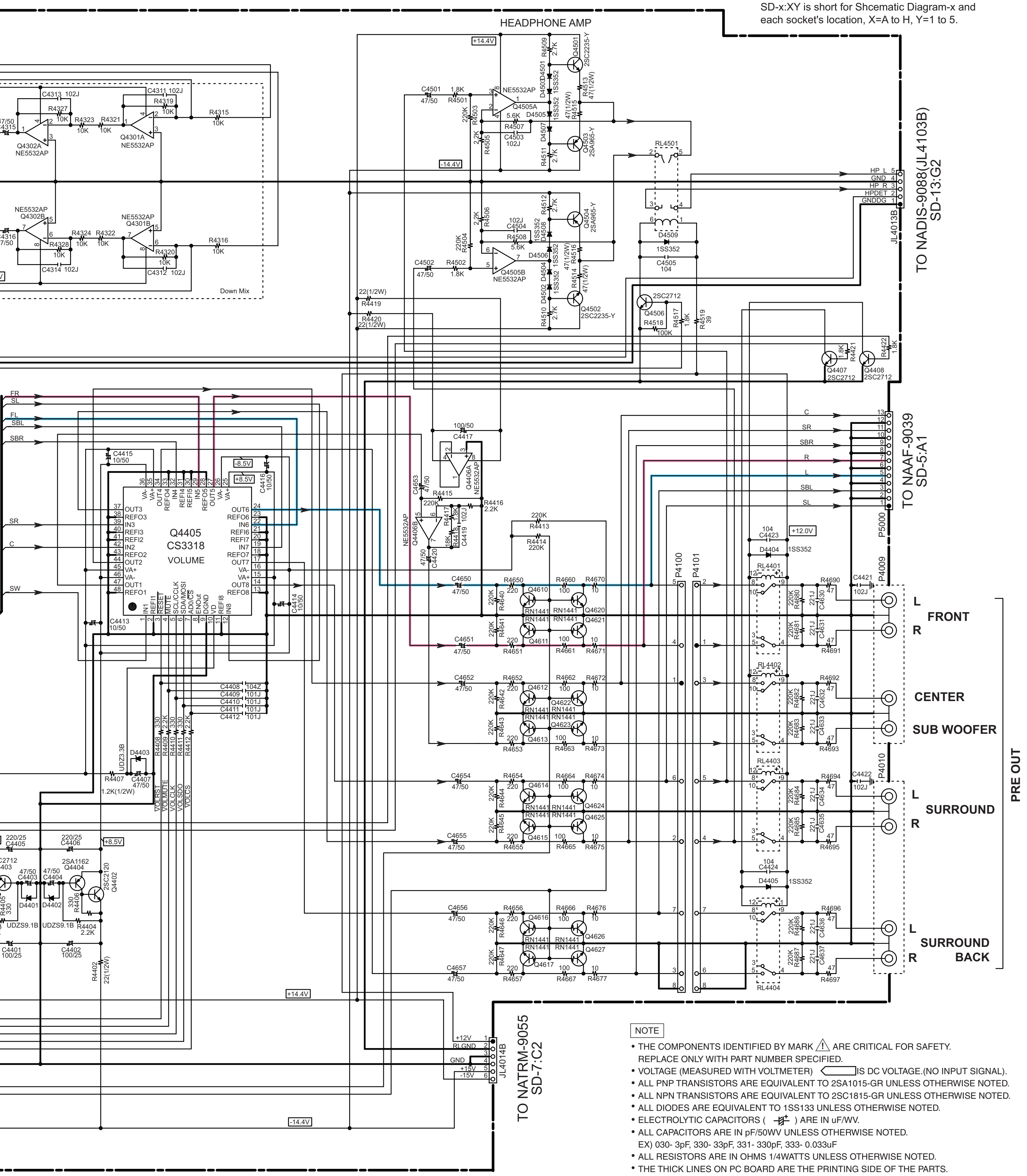
1 2 3 4 5

SCHEMATIC DIAGRAM-2 (SD-2)

AUDIO SECTION-2


NAASP-9050(2/2)
U06 AMPLIFIER PC BOARD
TO NAASP-9050(1/2) SD-1
VIDEO5L
-15V
MainAL
GND
MainAR
+15V
VIDEO5R
MCH_C
MCH_SL
MainBL
TAPEOUTL
VIDEOOUTL
TO NAETC-9073 SD-14:F2
P4110
TO NAETC-9073 SD-14:H2
P4111
VIDEOOUTR
TAPEOUTR
MainBR
MCH_SR
MCH_SW
PZ2L
MCH_SBL
BTLL
BTLR
MCH_SBR
PZ2R
ANALOG SW
NJU7312A
Q4304
ANALOG SW
NJU7313A
Q4305
NJU7311A
Q4306
ANALOG SW
Q4303A
NE5532AP
Q4303B
R4302 22(1/2W)
R4301 22(1/2W)
C4302 100/50
-14.4V
+14.4V
R4331 10K
R4335 10K
C4319 102J
C4321 47/50
R4332 10K
R4336 10K
C4320 102J
C4322 47/50
R4347 220K
R4348 220K
R4337 10K
R4338 10K
R4339 10K
R4340 10K
R4341 10K
R4342 10K
R4343 10K
R4344 10K
R4345 10K
MIXL
MIXR
C4315 47/50
C4316 47/50
R4329 220K
R4330 220K
-8.5V
2SC2712
Q4403
2SA950
Q4401
R4405 330
R4403 2.2K
C4401 100/25
R4401 22(1/2W)
TO NAAR-9075 SD-8:F4
P4020A
TO NAAR-9075 SD-8:G4
P4021A

<Note>
SD-x:XY is short for Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.

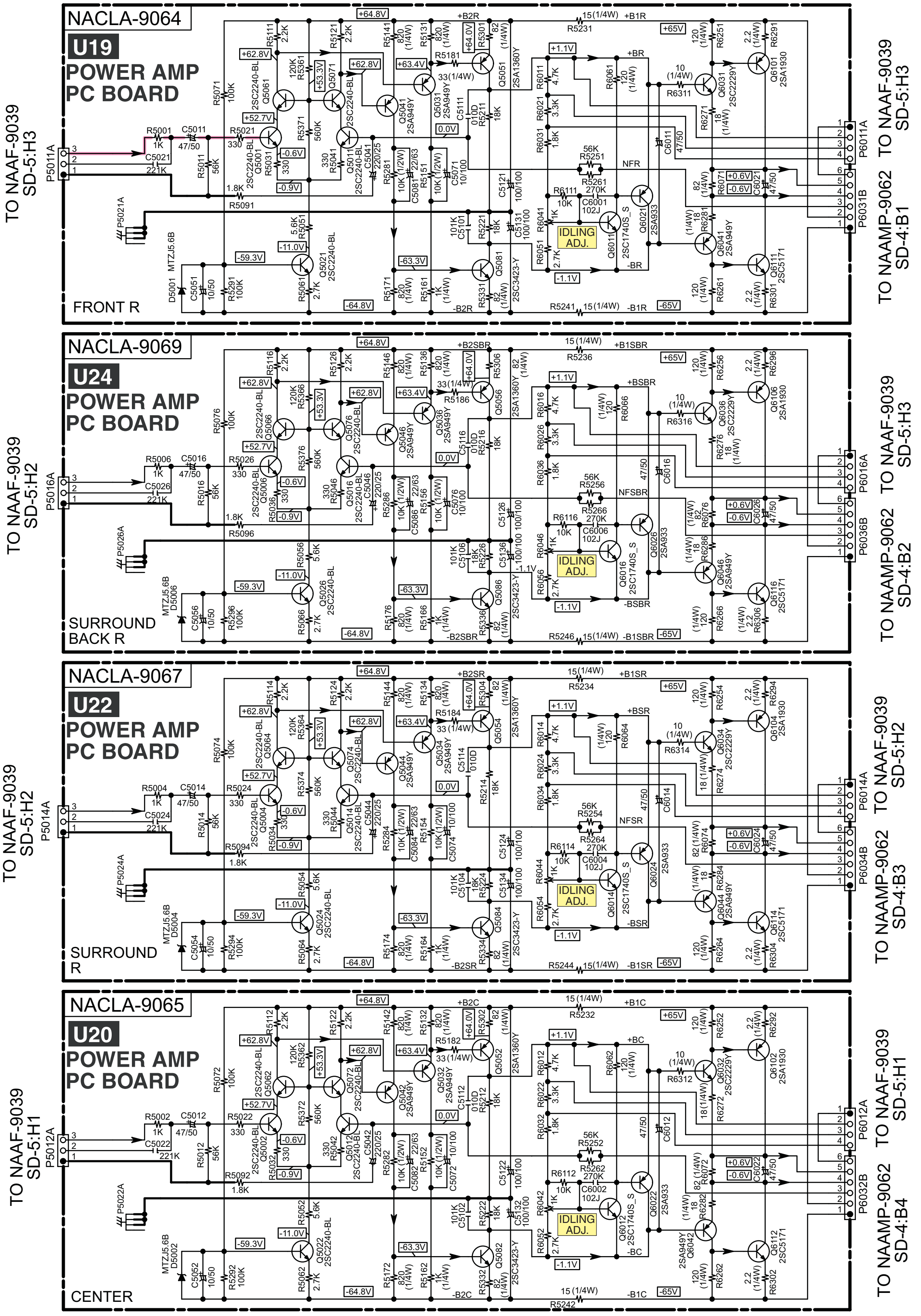

HEADPHONE AMP
+14.4V
-14.4V
NE5532AP
Q4505A
Q4505B
Q4501 2SC2235-Y
Q4502 2SC2235-Y
Q4503 2SA965-Y
Q4504 2SA965-Y
RL4501
D4509 1SS352
C4505 104
2SC2712 Q4506
HP L 5
GND 4
HP R 3
HPDET 2
GNDDG 1
JL4013B
TO NADIS-9088(JL4103B) SD-13:G2
Q4302A NE5532AP
Q4302B NE5532AP
Q4301A NE5532AP
Q4301B NE5532AP
Down Mix
Q4407 2SC2712
Q4408 2SC2712
FR
SL
FL
SBL
SBR
SR
C
SW
Q4405 CS3318 VOLUME
+8.5V
-8.5V
Q4406A NE5532AP
Q4406B NE5532AP
C
SR
SBR
R
L
SBL
SL
P5000
TO NAAF-9039 SD-5:A1
+12.0V
D4404 1SS352
D4405 1SS352
RL4401
RL4402
RL4403
RL4404
P4100
P4101
P4009
P4010
L
FRONT
R
CENTER
SUB WOOFER
L
SURROUND
R
L
SURROUND BACK
R
PRE OUT
VOLRST
VOLMUTE
VOLCLK
VOLSDO
VOLCS
UDZ3.3B D4403
Q4401 2SC2712
Q4404 2SA1162
Q4402 2SC2120
D4401 UDZS9.1B
D4402 UDZS9.1B
+14.4V
-14.4V
+12V 1
RLGND 2
GND 4
+15V 5
-15V 6
JL4014B
TO NATRM-9055 SD-7:C2

NOTE

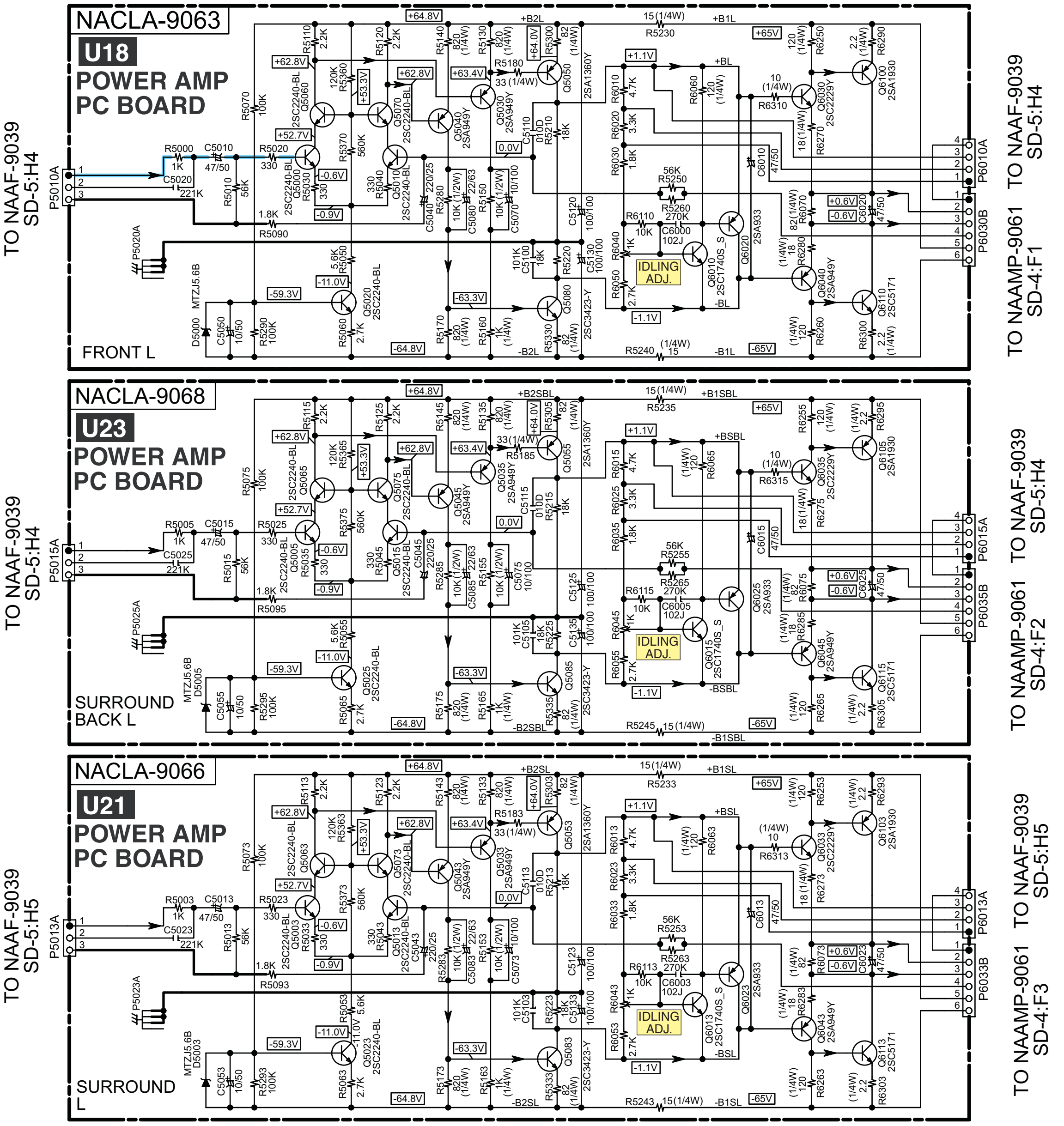
- THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER) ▭ IS DC VOLTAGE.(NO INPUT SIGNAL).
- ALL PNP TRANSISTORS ARE EQUIVALENT TO 2SA1015-GR UNLESS OTHERWISE NOTED.
- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS (⊣⊢) ARE IN uF/WV.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
  EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033uF
- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.
  EX) ○○○ ← PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

SCHEMATIC DIAGRAM-3 (SD-3)

POWER AMPLIFIER SECTION-1


NACLA-9064
U19
POWER AMP PC BOARD
FRONT R
TO NAAF-9039 SD-5:H3
P5011A
TO NAAF-9039 SD-5:H3
P6011A
TO NAAMP-9062 SD-4:B1
P6031B
IDLING ADJ.
NFR
+B1R
-B1R
+B2R
-B2R
+BR
-BR
NACLA-9069
U24
POWER AMP PC BOARD
SURROUND BACK R
TO NAAF-9039 SD-5:H2
P5016A
TO NAAF-9039 SD-5:H3
P6016A
TO NAAMP-9062 SD-4:B2
P6036B
IDLING ADJ.
NFSBR
+B1SBR
-B1SBR
+B2SBR
-B2SBR
+BSBR
-BSBR
NACLA-9067
U22
POWER AMP PC BOARD
SURROUND R
TO NAAF-9039 SD-5:H2
P5014A
TO NAAF-9039 SD-5:H2
P6014A
TO NAAMP-9062 SD-4:B3
P6034B
IDLING ADJ.
NFSR
+B1SR
-B1SR
+B2SR
-B2SR
+BSR
-BSR
NACLA-9065
U20
POWER AMP PC BOARD
CENTER
TO NAAF-9039 SD-5:H1
P5012A
TO NAAF-9039 SD-5:H1
P6012A
TO NAAMP-9062 SD-4:B4
P6032B
IDLING ADJ.
+B1C
-B1C
+B2C
-B2C
+BC
-BC
+64.8V
+62.8V
+53.3V
+63.4V
+64.0V
+65V
+52.7V
+1.1V
-0.6V
-0.9V
0.0V
+0.6V
-0.6V
-11.0V
-59.3V
-63.3V
-1.1V
-64.8V
-65V
2SC2240-BL
2SA949Y
2SA1360Y
2SC3423-Y
2SC1740S_S
2SA933
2SC2229Y
2SA1930
2SC5171
MTZJ5.6B

NACLA-9064,65,67,69
are fully compatible with each other.


NACLA-9063
U18
POWER AMP PC BOARD
FRONT L
TO NAAF-9039 SD-5:H4
P5010A
P5020A
TO NAAF-9039 SD-5:H4
P6010A
TO NAAMP-9061 SD-4:F1
P6030B
IDLING ADJ.
NACLA-9068
U23
POWER AMP PC BOARD
SURROUND BACK L
TO NAAF-9039 SD-5:H4
P5015A
P5025A
TO NAAF-9039 SD-5:H4
P6015A
TO NAAMP-9061 SD-4:F2
P6035B
IDLING ADJ.
NACLA-9066
U21
POWER AMP PC BOARD
SURROUND L
TO NAAF-9039 SD-5:H5
P5013A
P5023A
TO NAAF-9039 SD-5:H5
P6013A
TO NAAMP-9061 SD-4:F3
P6033B
IDLING ADJ.
+64.8V
+62.8V
+63.4V
+64.0V
+53.3V
+52.7V
+1.1V
+65V
-0.6V
-0.9V
0.0V
+0.6V
-0.6V
-11.0V
-59.3V
-63.3V
-64.8V
-1.1V
-65V
+B2L
+B1L
+BL
-B2L
-B1L
-BL
+B2SBL
+B1SBL
+BSBL
-B2SBL
-B1SBL
-BSBL
+B2SL
+B1SL
+BSL
-B2SL
-B1SL
-BSL
2SC2240-BL
2SA949Y
2SA1360Y
2SC3423-Y
2SC1740S_S
2SA933
2SC2229Y
2SA1930
2SC5171
MTZJ5.6B

NACLA-9063,66,68
are fully compatible with each other.

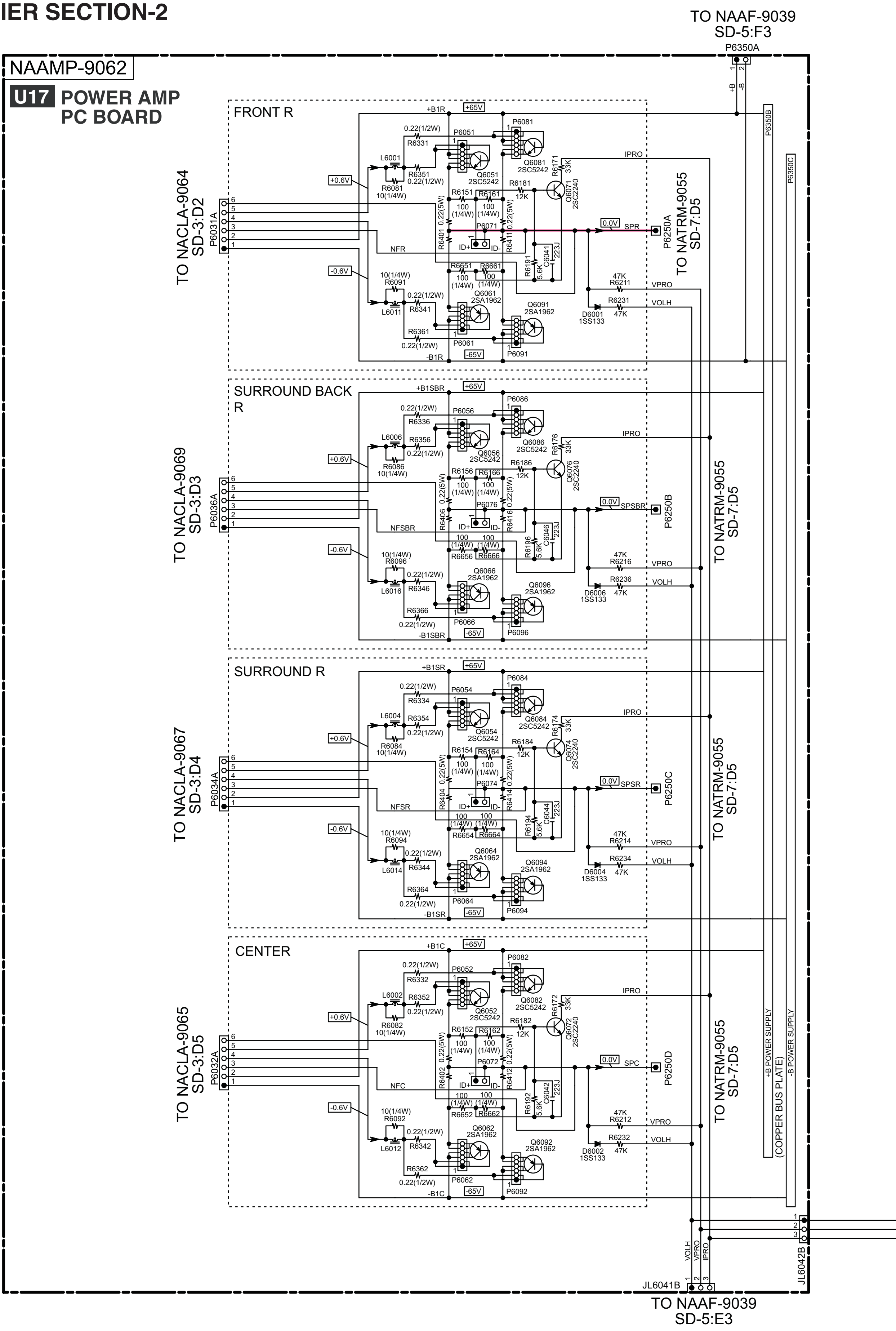
<Note>
SD-x:XY is short for Shcematic Diagram-x and
each socket's location, X=A to H, Y=1 to 5.

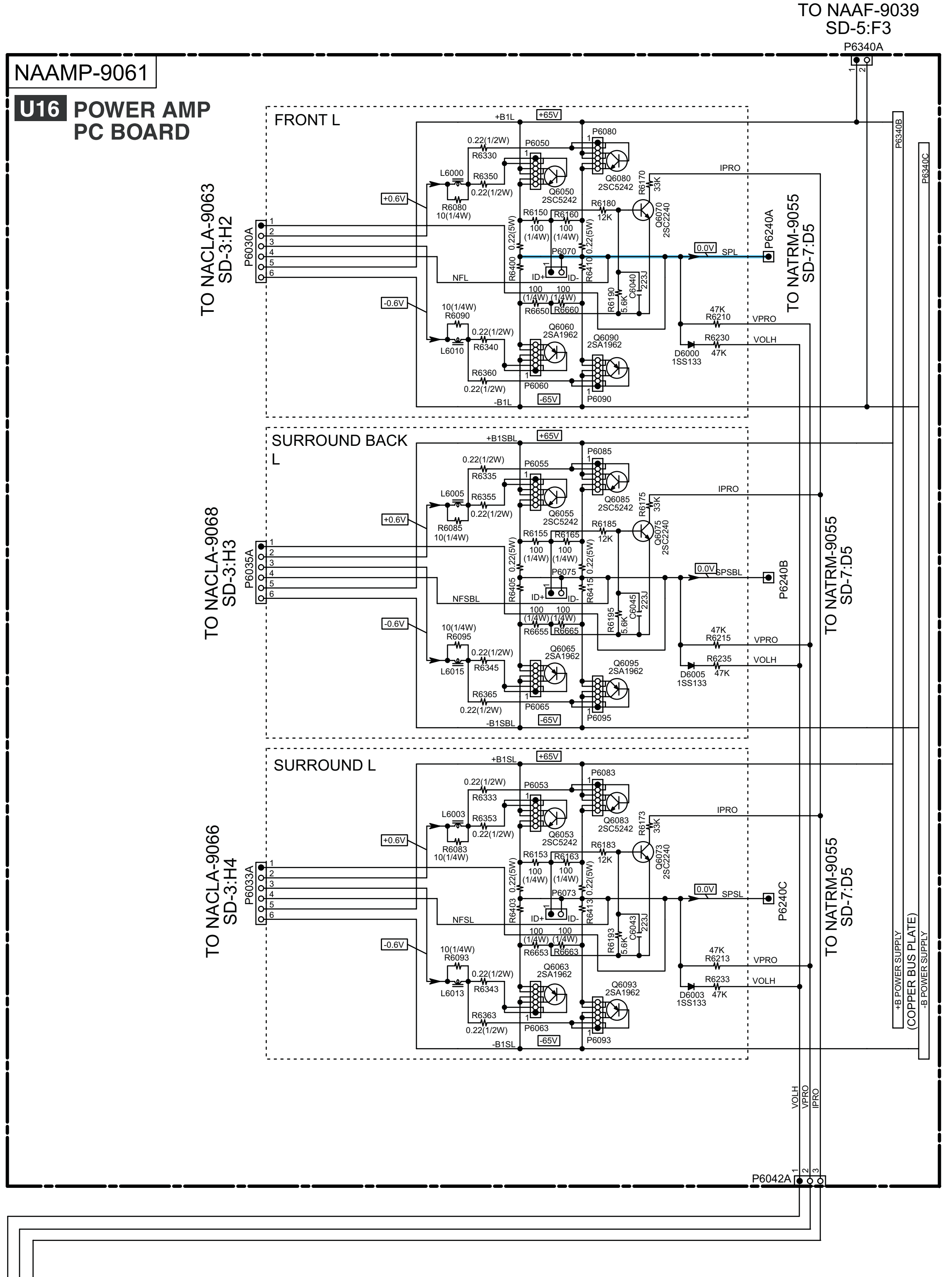
NOTE

- THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR SAFETY.
  REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER) ▭ IS DC VOLTAGE.(NO INPUT SIGNAL).
- ALL PNP TRANSISTORS ARE EQUIVALENT TO 2SA1015-GR UNLESS OTHERWISE NOTED.
- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS (⊣⊢) ARE IN uF/WV.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
  EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033uF
- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.
  EX) ○ ○ ○ PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

SCHEMATIC DIAGRAM-4 (SD-4)

POWER AMPLIFIER SECTION-2


TO NAAF-9039
SD-5:F3
P6350A
+B
-B
P6350B
P6350C
NAAMP-9062
U17 POWER AMP PC BOARD
FRONT R
+B1R
+65V
-B1R
-65V
+0.6V
-0.6V
TO NACLA-9064
SD-3:D2
P6031A
NFR
L6001
L6011
R6331
R6351
R6081
R6091
R6341
R6361
0.22(1/2W)
10(1/4W)
P6051
P6061
P6071
P6081
P6091
Q6051
2SC5242
Q6061
2SA1962
Q6081
2SC5242
Q6091
2SA1962
Q6071
2SC2240
R6151
R6161
R6651
R6661
100
(1/4W)
R6401
R6411
0.22(5W)
R6171
33K
R6181
12K
R6191
5.6K
C6041
223J
ID+
ID-
IPRO
SPR
0.0V
VPRO
VOLH
R6211
R6231
47K
D6001
1SS133
P6250A
TO NATRM-9055
SD-7:D5
SURROUND BACK R
+B1SBR
-B1SBR
TO NACLA-9069
SD-3:D3
P6036A
NFSBR
L6006
L6016
R6336
R6356
R6086
R6096
R6346
R6366
P6056
P6066
P6076
P6086
P6096
Q6056
Q6066
Q6086
Q6096
Q6076
R6156
R6166
R6656
R6666
R6406
R6416
R6176
R6186
R6196
C6046
SPSBR
R6216
R6236
D6006
P6250B
SURROUND R
+B1SR
-B1SR
TO NACLA-9067
SD-3:D4
P6034A
NFSR
L6004
L6014
R6334
R6354
R6084
R6094
R6344
R6364
P6054
P6064
P6074
P6084
P6094
Q6054
Q6064
Q6084
Q6094
Q6074
R6154
R6164
R6654
R6664
R6404
R6414
R6174
R6184
R6194
C6044
SPSR
R6214
R6234
D6004
P6250C
CENTER
+B1C
-B1C
TO NACLA-9065
SD-3:D5
P6032A
NFC
L6002
L6012
R6332
R6352
R6082
R6092
R6342
R6362
P6052
P6062
P6072
P6082
P6092
Q6052
Q6062
Q6082
Q6092
Q6072
R6152
R6162
R6652
R6662
R6402
R6412
R6172
R6182
R6192
C6042
SPC
R6212
R6232
D6002
P6250D
+B POWER SUPPLY
(COPPER BUS PLATE)
-B POWER SUPPLY
JL6042B
JL6041B
VOLH
VPRO
IPRO
TO NAAF-9039
SD-5:E3


TO NAAF-9039
SD-5:F3
P6340A
NAAMP-9061
U16 POWER AMP PC BOARD
FRONT L
SURROUND BACK L
SURROUND L
TO NACLA-9063 SD-3:H2
TO NACLA-9068 SD-3:H3
TO NACLA-9066 SD-3:H4
P6030A
P6035A
P6033A
TO NATRM-9055 SD-7:D5
P6240A
P6240B
P6240C
P6340B
P6340C
+B1L
-B1L
+B1SBL
-B1SBL
+B1SL
-B1SL
+65V
-65V
+0.6V
-0.6V
0.0V
SPL
SPSBL
SPSL
NFL
NFSBL
NFSL
IPRO
VPRO
VOLH
Q6050 2SC5242
Q6080 2SC5242
Q6060 2SA1962
Q6090 2SA1962
Q6070 2SC2240
Q6055 2SC5242
Q6085 2SC5242
Q6065 2SA1962
Q6095 2SA1962
Q6075 2SC2240
Q6053 2SC5242
Q6083 2SC5242
Q6063 2SA1962
Q6093 2SA1962
Q6073 2SC2240
D6000 1SS133
D6005 1SS133
D6003 1SS133
R6170 33K
R6180 12K
R6190 5.6K
C6040 223J
R6210 47K
R6230 47K
R6330 0.22(1/2W)
R6350 0.22(1/2W)
R6340 0.22(1/2W)
R6360 0.22(1/2W)
R6080 10(1/4W)
R6090 10(1/4W)
R6150 100 (1/4W)
R6160 100 (1/4W)
R6650 100 (1/4W)
R6660 100 (1/4W)
R6400 0.22(5W)
R6410 0.22(5W)
L6000
L6010
P6050
P6060
P6070
P6080
P6090
ID+
ID-
+B POWER SUPPLY
(COPPER BUS PLATE)
-B POWER SUPPLY
P6042A

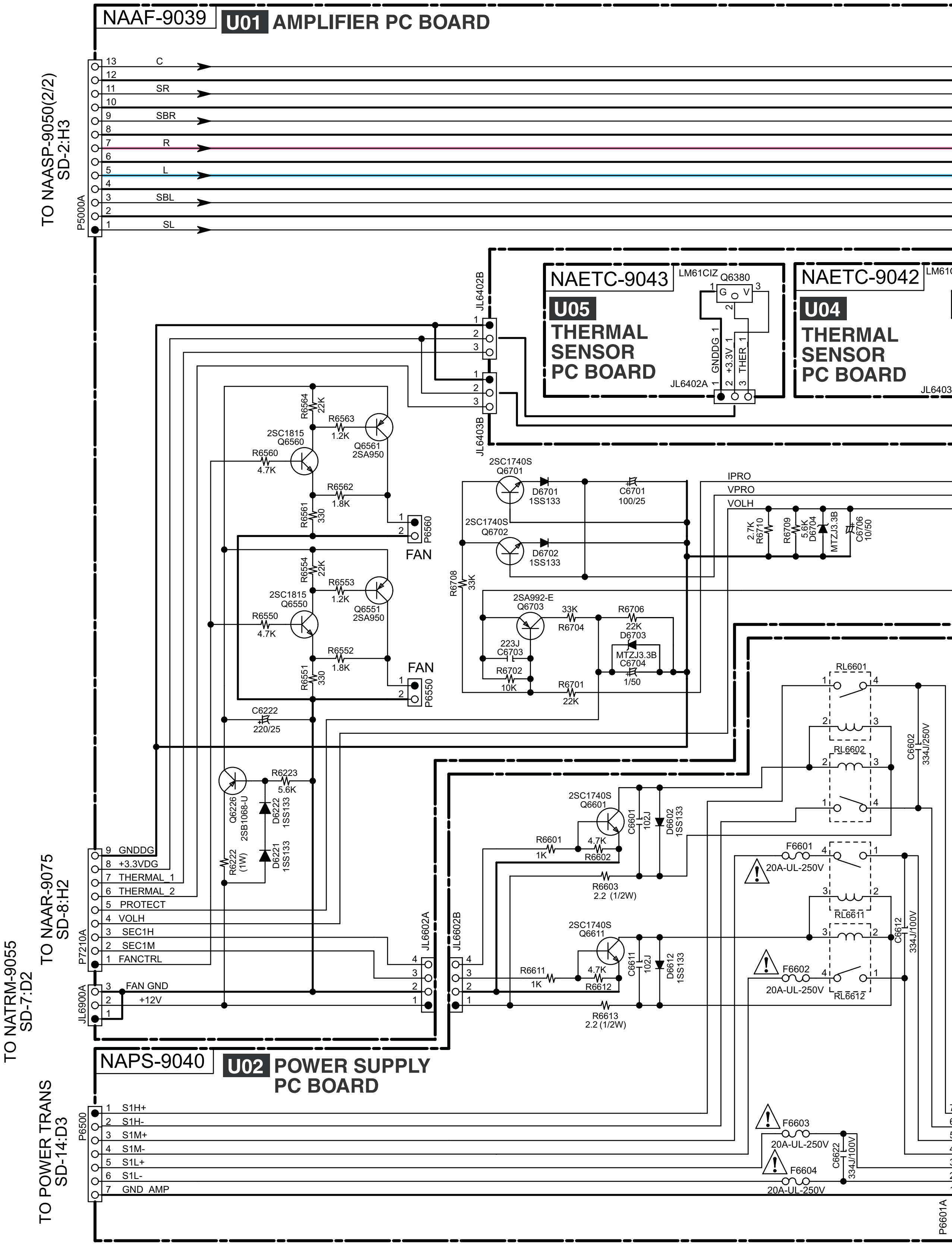
NOTE

- THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR SAFETY.
  REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER) IS DC VOLTAGE.(NO INPUT SIGNAL).
- ALL PNP TRANSISTORS ARE EQUIVALENT TO 2SA1015-GR UNLESS OTHERWISE NOTED.
- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS ( ) ARE IN uF/WV.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
  EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033uF
- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.
  EX) ○○○ ← PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

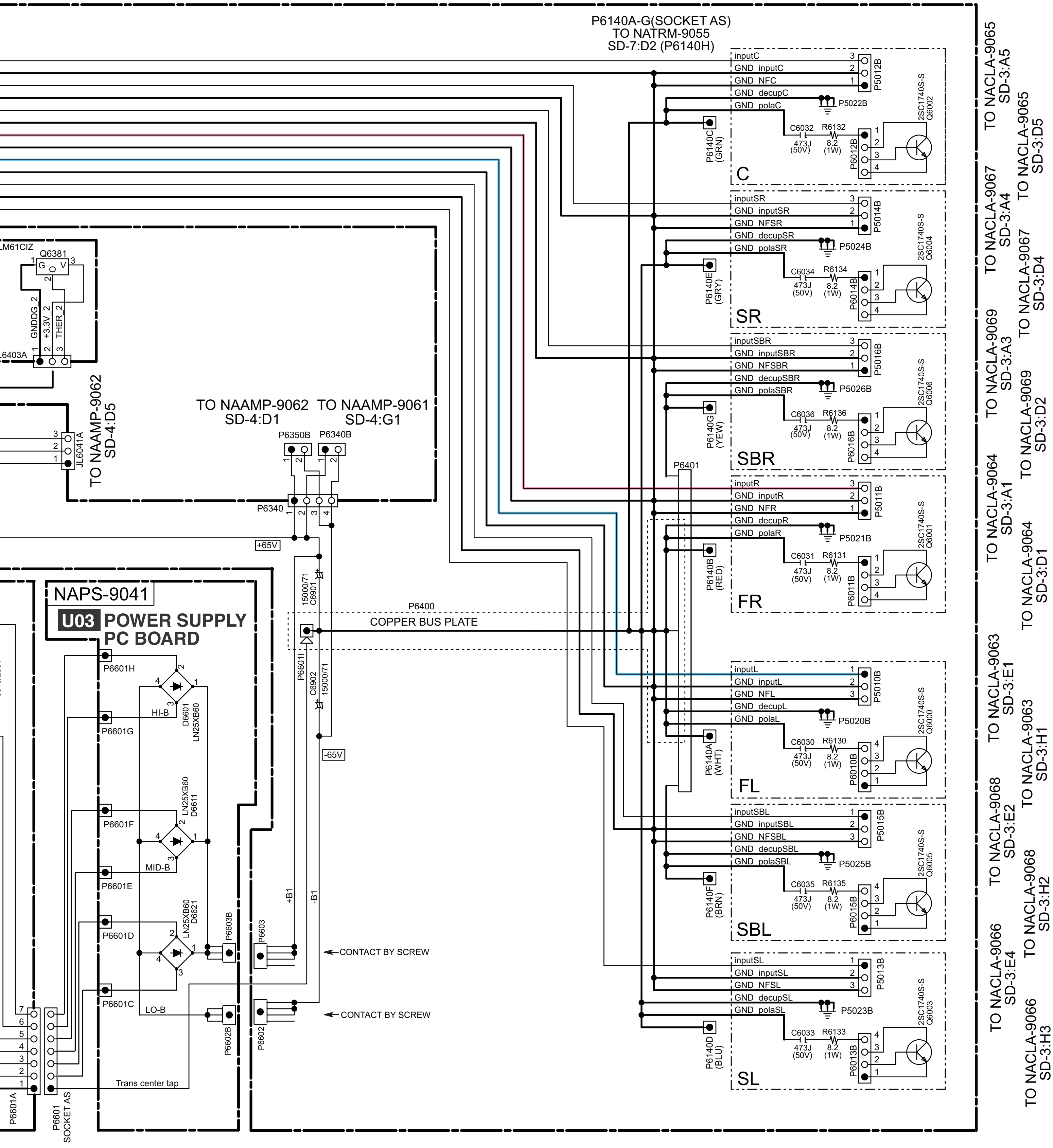
<Note>
SD-x:XY is short for Shcematic Diagram-x and
each socket's location, X=A to H, Y=1 to 5.

SCHEMATIC DIAGRAM-5 (SD-5)

POWER SUPPLY SECTION-1

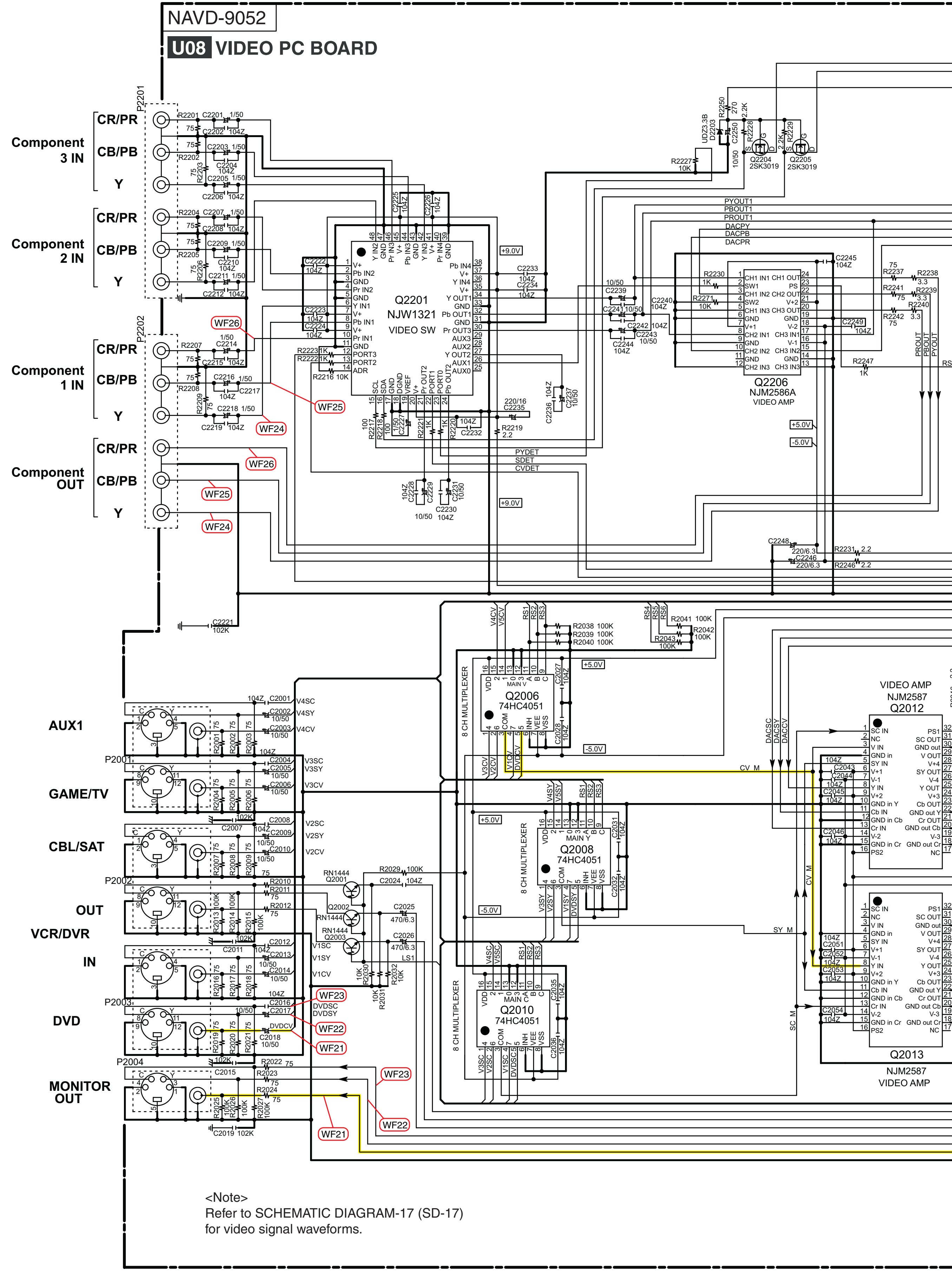

1
2
3
4
5
NAAF-9039
U01 AMPLIFIER PC BOARD
TO NAASP-9050(2/2) SD-2:H3
P5000A
13 C
12
11 SR
10
9 SBR
8
7 R
6
5 L
4
3 SBL
2
1 SL
JL6402B
1
2
3
JL6403B
NAETC-9043
U05
THERMAL SENSOR PC BOARD
LM61CIZ
Q6380
G O V
GNDDG 1
+3.3V 1
THER 1
JL6402A
NAETC-9042
U04
THERMAL SENSOR PC BOARD
JL6403
R6564 22K
R6563 1.2K
2SC1815 Q6560
Q6561 2SA950
R6560 4.7K
R6562 1.8K
R6561 330
P6560
FAN
R6554 22K
R6553 1.2K
2SC1815 Q6550
Q6551 2SA950
R6550 4.7K
R6552 1.8K
R6551 330
FAN
P6550
C6222 220/25
R6223 5.6K
Q6226 2SB1068-U
D6222 1SS133
R6222 (1W)
D6221 1SS133
2SC1740S Q6701
D6701 1SS133
C6701 100/25
2SC1740S Q6702
D6702 1SS133
R6708 33K
2SA992-E Q6703
33K R6704
R6706 22K
D6703 MTZJ3.3B
C6704 1/50
223J C6703
R6702 10K
R6701 22K
IPRO
VPRO
VOLH
R6710 2.7K
R6709 5.6K
D6704 MTZJ3.3B
C6706 10/50
RL6601
C6602 334J/250V
RL6602
2SC1740S Q6601
C6601 102J
D6602 1SS133
R6601 1K
4.7K R6602
R6603 2.2 (1/2W)
F6601 20A-UL-250V
RL6611
C6612 334J/100V
2SC1740S Q6611
C6611 102J
D6612 1SS133
R6611 1K
4.7K R6612
R6613 2.2 (1/2W)
F6602 20A-UL-250V
RL6612
TO NAAR-9075 SD-8:H2
P7210A
9 GNDDG
8 +3.3VDG
7 THERMAL_1
6 THERMAL_2
5 PROTECT
4 VOLH
3 SEC1H
2 SEC1M
1 FANCTRL
JL6602A
JL6602B
TO NATRM-9055 SD-7:D2
JL6900A
3 FAN GND
2 +12V
1
NAPS-9040
U02 POWER SUPPLY PC BOARD
TO POWER TRANS SD-14:D3
P6500
1 S1H+
2 S1H-
3 S1M+
4 S1M-
5 S1L+
6 S1L-
7 GND_AMP
F6603 20A-UL-250V
C6622 334J/100V
F6604 20A-UL-250V
P6601A

<Note>
SD-x:XY is short for Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.


P6140A-G(SOCKET AS)
TO NATRM-9055
SD-7:D2 (P6140H)
inputC
GND_inputC
GND_NFC
GND_decupC
GND_polaC
P5012B
P5022B
C6032 473J (50V)
R6132 8.2 (1W)
P6012B
2SC1740S-S Q6002
P6140C (GRN)
C
TO NACLA-9065 SD-3:A5
TO NACLA-9065 SD-3:D5
inputSR
GND_inputSR
GND_NFSR
GND_decupSR
GND_polaSR
P5014B
P5024B
C6034 473J (50V)
R6134 8.2 (1W)
P6014B
2SC1740S-S Q6004
P6140E (GRY)
SR
TO NACLA-9067 SD-3:A4
TO NACLA-9067 SD-3:D4
inputSBR
GND_inputSBR
GND_NFSBR
GND_decupSBR
GND_polaSBR
P5016B
P5026B
C6036 473J (50V)
R6136 8.2 (1W)
P6016B
2SC1740S-S Q6006
P6140G (YEW)
SBR
TO NACLA-9069 SD-3:A3
TO NACLA-9069 SD-3:D2
P6401
inputR
GND_inputR
GND_NFR
GND_decupR
GND_polaR
P5011B
P5021B
C6031 473J (50V)
R6131 8.2 (1W)
P6011B
2SC1740S-S Q6001
P6140B (RED)
FR
TO NACLA-9064 SD-3:A1
TO NACLA-9064 SD-3:D1
inputL
GND_inputL
GND_NFL
GND_decupL
GND_polaL
P5010B
P5020B
C6030 473J (50V)
R6130 8.2 (1W)
P6010B
2SC1740S-S Q6000
P6140A (WHT)
FL
TO NACLA-9063 SD-3:E1
TO NACLA-9063 SD-3:H1
inputSBL
GND_inputSBL
GND_NFSBL
GND_decupSBL
GND_polaSBL
P5015B
P5025B
C6035 473J (50V)
R6135 8.2 (1W)
P6015B
2SC1740S-S Q6005
P6140F (BRN)
SBL
TO NACLA-9068 SD-3:E2
TO NACLA-9068 SD-3:H2
inputSL
GND_inputSL
GND_NFSL
GND_decupSL
GND_polaSL
P5013B
P5023B
C6033 473J (50V)
R6133 8.2 (1W)
P6013B
2SC1740S-S Q6003
P6140D (BLU)
SL
TO NACLA-9066 SD-3:E4
TO NACLA-9066 SD-3:H3
LM61CIZ
Q6381
G O V
GNDDG_2
+3.3V_2
THER_2
L6403A
JL6041A
TO NAAMP-9062 SD-4:D5
TO NAAMP-9062 SD-4:D1
TO NAAMP-9061 SD-4:G1
P6350B
P6340B
P6340
+65V
-65V
15000/71 C6901
C6902 15000/71
P6601I
P6400
COPPER BUS PLATE
NAPS-9041
U03 POWER SUPPLY PC BOARD
P6601H
P6601G
HI-B
D6601 LN25XB60
P6601F
P6601E
MID-B
LN25XB60 D6611
P6601D
P6601C
LN25XB60 D6621
LO-B
P6603B
P6602B
P6603
P6602
+B1
-B1
CONTACT BY SCREW
CONTACT BY SCREW
Trans center tap
P6601A
P6601 SOCKET AS

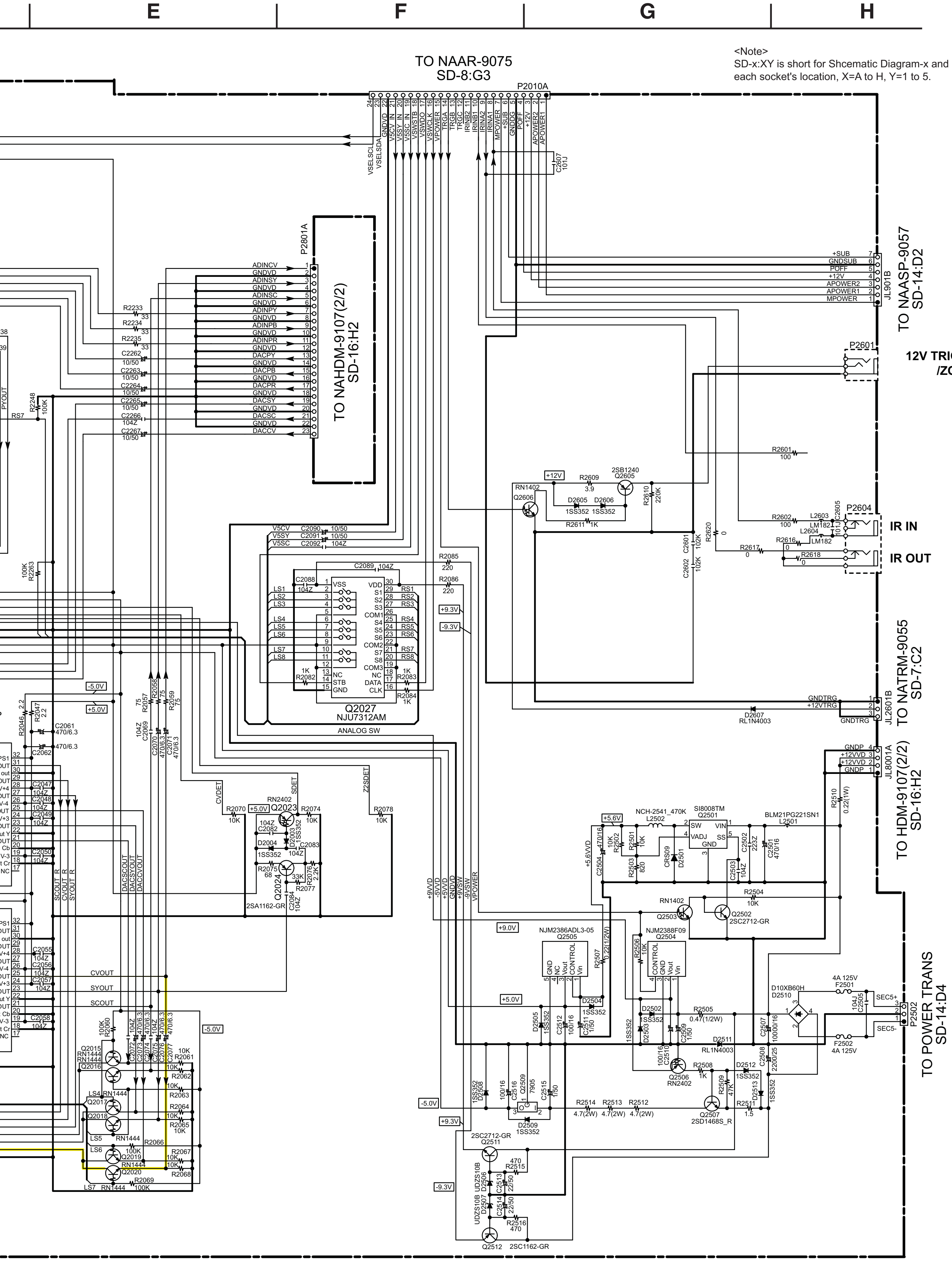
SCHEMATIC DIAGRAM-6 (SD-6)

VIDEO SECTION


A
B
C
D
1
2
3
4
5
NAVD-9052
U08 VIDEO PC BOARD
P2201
Component 3 IN
CR/PR
CB/PB
Y
Component 2 IN
CR/PR
CB/PB
Y
P2202
Component 1 IN
CR/PR
CB/PB
Y
Component OUT
CR/PR
CB/PB
Y
WF24
WF25
WF26
Q2201
NJW1321
VIDEO SW
+9.0V
Q2206
NJM2586A
VIDEO AMP
Q2204
2SK3019
Q2205
2SK3019
UDZ3.3B D2203
PYOUT1
PBOUT1
PROUT1
DACPY
DACPB
DACPR
PYDET
SDET
CVDET
+5.0V
-5.0V
PROUT
PBOUT
PYOUT
AUX1
P2001
GAME/TV
CBL/SAT
P2002
OUT
VCR/DVR
IN
P2003
DVD
P2004
MONITOR OUT
8 CH MULTIPLEXER
Q2006
74HC4051
MAIN Y
Q2008
74HC4051
MAIN C
Q2010
74HC4051
RN1444 Q2001
RN1444 Q2002
RN1444 Q2003
VIDEO AMP
NJM2587
Q2012
Q2013
NJM2587
VIDEO AMP
CV_M
SY_M
SC_M
DACSC
DACSY
DACCV
WF21
WF22
WF23

<Note>
Refer to SCHEMATIC DIAGRAM-17 (SD-17)
for video signal waveforms.

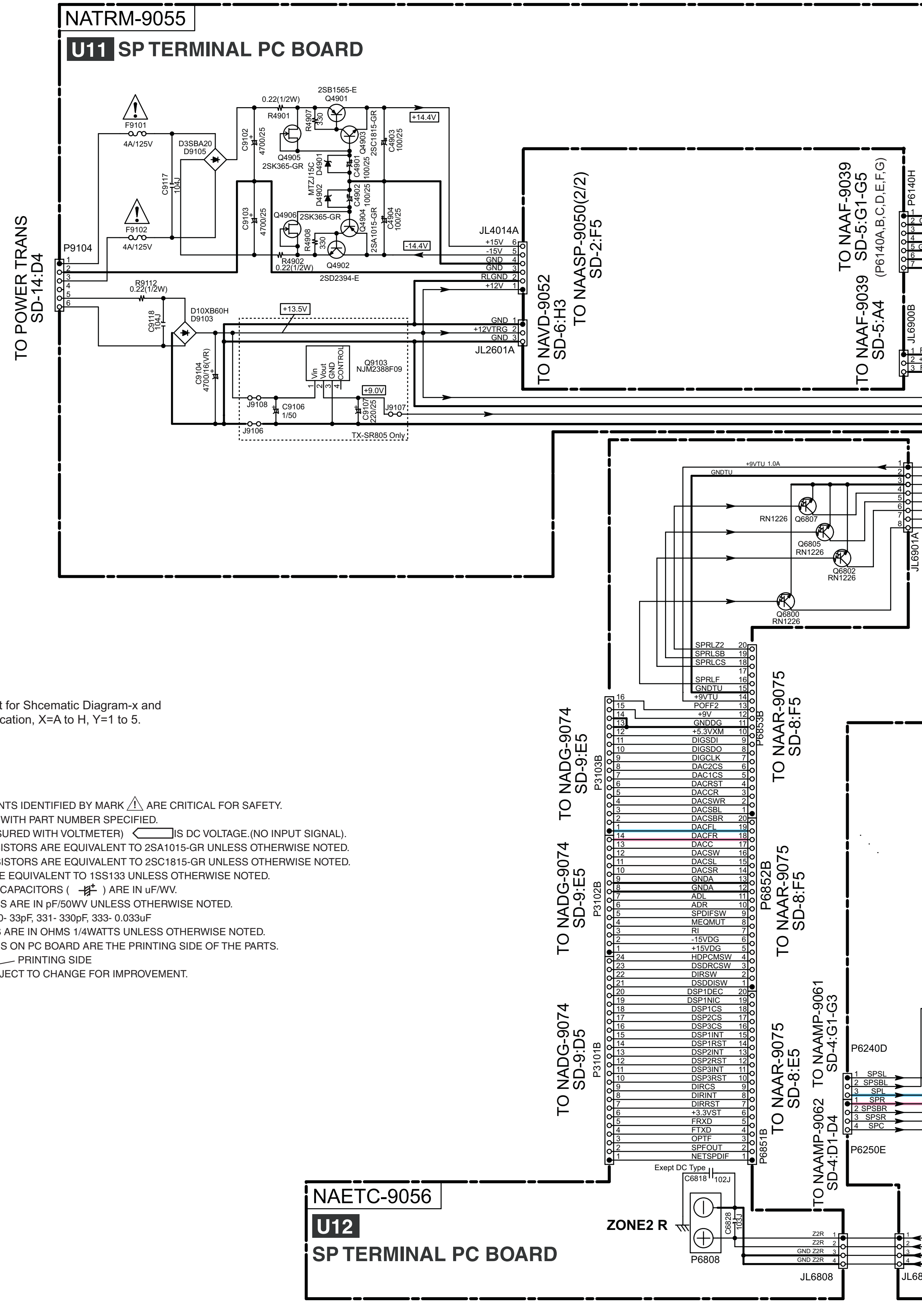
<Note>
SD-x:XY is short for Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.


E
F
G
H
TO NAAR-9075
SD-8:G3
P2010A
VSELSCL
VSELSDA
GNDVD
V5CV_IN
V5SY_IN
V5SC_IN
VSWSTB
VSWDO
VSWCLK
VPOWER
TRGA
TRGB
TRGC
IRINB2
IRINB1
IRINA2
IRINA1
MPOWER
+SUB
GNDG
POFF
+12V
APOWER2
APOWER1
C2607
101J
P2801A
ADINCV
GNDVD
ADINSY
ADINSC
ADINPY
ADINPB
ADINPR
DACPY
DACPB
DACPR
DACSY
DACSC
DACCV
TO NAHDM-9107(2/2)
SD-16:H2
R2233
R2234
R2235
C2262
C2263
C2264
C2265
C2266
C2267
R2248
100K
PYOUT
RS7
TO NAASP-9057
SD-14:D2
JL901B
+SUB
GNDSUB
POFF
+12V
APOWER2
APOWER1
MPOWER
P2601
12V TRIGGER OUT
/ZONE 2
R2601
100
+12V
R2609
3.9
2SB1240
Q2605
RN1402
Q2606
D2605
D2606
1SS352
R2611
1K
R2610
220K
C2601
102K
C2602
102K
R2620
0
R2602
100
L2603
LM182
L2604
C2605
101J
P2604
R2616
R2617
R2618
IR IN
IR OUT
V5CV
V5SY
V5SC
C2090
C2091
C2092
C2089
104Z
C2088
R2085
220
R2086
220
+9.3V
-9.3V
LS1
LS2
LS3
LS4
LS5
LS6
LS7
LS8
RS1
RS2
RS3
RS4
RS5
RS6
RS7
RS8
VSS
VDD
COM1
COM2
COM3
NC
STB
GND
DATA
CLK
R2082
R2083
R2084
Q2027
NJU7312AM
ANALOG SW
TO NATRM-9055
SD-7:C2
JL2601B
GNDTRG
+12VTRG
D2607
RL1N4003
TO HDM-9107(2/2)
SD-16:H2
JL8001A
GNDP
+12VVD
-5.0V
+5.0V
R2046
R2047
C2061
C2062
470/6.3
R2057
R2058
R2059
75
C2069
C2070
C2071
CVDET
SDET
Z2SDET
R2070
10K
RN2402
Q2023
R2074
10K
R2078
10K
C2082
D2004
1SS352
D2003
C2083
R2075
68
Q2024
2SA1162-GR
R2076
2.2K
R2077
33K
C2084
SCOUT
SCOUT_R
SYOUT_R
DACSCOUT
DACSYOUT
DACCVOUT
CVOUT
SYOUT
SCOUT
C2047
C2048
C2049
C2050
C2055
C2056
C2057
C2058
+9VVD
-5VVD
+5VVD
GNDVD
-9VSW
+9VSW
VPOWER
+5.6V
C2504
470/16
+5.6VVD
R2502
R2501
R2503
820
CR509
D2501
NCH-2541_470K
L2502
SI8008TM
Q2501
SW
VIN
VADJ
SS
GND
C2502
223Z
C2503
104Z
C2501
470/16
BLM21PG221SN1
L2501
R2510
0.22(1W)
R2504
10K
RN1402
Q2503
Q2502
2SC2712-GR
+9.0V
NJM2386ADL3-05
Q2505
NJM2388F09
Q2504
CONTROL
Vout
Vin
R2507
0.22(1/2W)
R2506
10K
+5.0V
D2504
1SS352
D2505
C2512
100/16
C2511
1/50
D2502
D2503
C2509
R2505
0.47(1/2W)
D2511
RL1N4003
C2510
100/16
C2507
10000/16
C2508
2200/25
D10XB60H
D2510
F2501
4A 125V
F2502
4A 125V
C2506
104J
SEC5+
SEC5-
P2502
TO POWER TRANS
SD-14:D4
Q2506
RN2402
R2508
1K
R2509
47K
D2512
1SS352
D2513
R2511
1.5
Q2507
2SD1468S_R
R2514
R2513
R2512
4.7(2W)
-5.0V
+9.3V
D2508
C2516
Q2509
7905
C2515
1/50
D2509
1SS352
2SC2712-GR
Q2511
R2515
470
UDZS10B
D2506
D2507
C2513
22/50
C2514
R2516
470
-9.3V
Q2512
2SC1162-GR
Q2015
Q2016
Q2017
Q2018
Q2019
Q2020
RN1444
R2060
R2061
R2062
R2063
R2064
R2065
R2066
R2067
R2068
R2069
100K
C2072
C2073
C2074
C2075
C2076
C2077
LS4
LS5
LS6
LS7

A B C D

SCHEMATIC DIAGRAM-7 (SD-7)

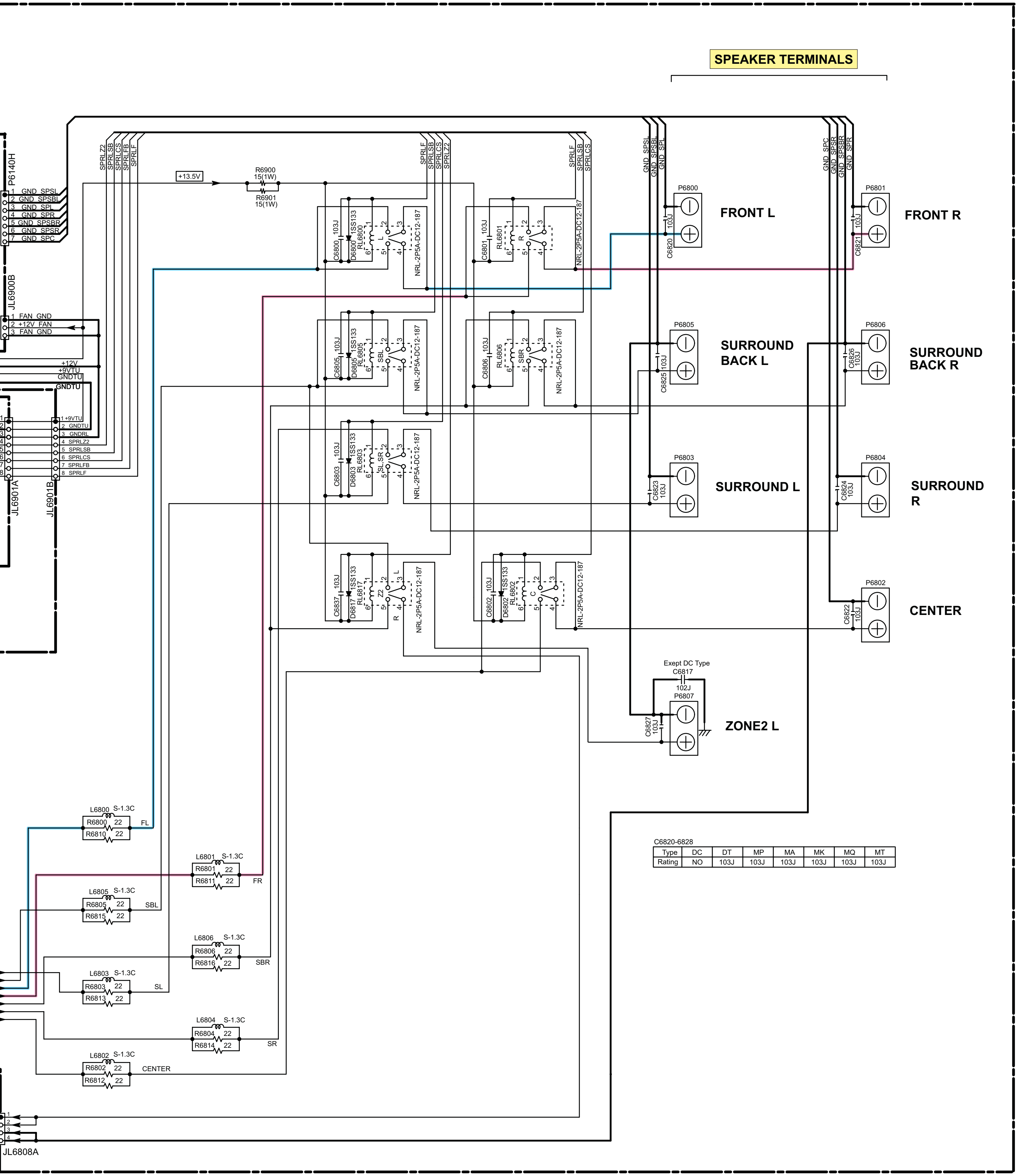
SP TERMINAL SECTION


1
2
3
4
5
NATRM-9055
U11 SP TERMINAL PC BOARD
TO POWER TRANS SD-14:D4
P9104
F9101 4A/125V
F9102 4A/125V
D3SBA20 D9105
C9117 104J
R9112 0.22(1/2W)
C9118 104J
D10XB60H D9103
C9104 4700/16(VR)
0.22(1/2W) R4901
2SB1565-E Q4901
C9102 4700/25
R4907 330
Q4905 2SK365-GR
MTZJ15C D4901
D4902
C4901 100/25
C4902 100/25
Q4903 2SC1815-GR
C4903 100/25
+14.4V
C9103 4700/25
Q4906 2SK365-GR
R4908 330
Q4904 2SA1015-GR
C4904 100/25
-14.4V
R4902 0.22(1/2W)
Q4902 2SD2394-E
+13.5V
Q9103 NJM2388F09
Vin Vout GND CONTROL
+9.0V
J9108
C9106 1/50
C9107 220/25
J9107
J9106
TX-SR805 Only
JL4014A
+15V 6
-15V 5
GND 4
GND 3
RLGND 2
+12V 1
GND 1
+12VTRG 2
GND 3
JL2601A
TO NAVD-9052 SD-6:H3
TO NAASP-9050(2/2) SD-2:F5
TO NAAF-9039 SD-5:G1-G5 (P6140A,B,C,D,E,F,G)
P6140H
TO NAAF-9039 SD-5:A4
JL6900B
+9VTU 1.0A
GNDTU
RN1226 Q6807
Q6805 RN1226
Q6802 RN1226
Q6800 RN1226
JL6901A
SPRLZ2 20
SPRLSB 19
SPRLCS 18
17
SPRLF 16
GNDTU 15
+9VTU 14
POFF2 13
+9V 12
GNDDG 11
+5.3VXM 10
DIGSDI 9
DIGSDO 8
DIGCLK 7
DAC2CS 6
DAC1CS 5
DACRST 4
DACCR 3
DACSWR 2
DACSBL 1
DACSBR 20
DACFL 19
DACFR 18
DACC 17
DACSW 16
DACSL 15
DACSR 14
GNDA 13
GNDA 12
ADL 11
ADR 10
SPDIFSW 9
MEQMUT 8
RI 7
-15VDG 6
+15VDG 5
HDPCMSW 4
DSDRCSW 3
DIRSW 2
DSDDISW 1
DSP1DEC 20
DSP1NIC 19
DSP1CS 18
DSP2CS 17
DSP3CS 16
DSP1INT 15
DSP1RST 14
DSP2INT 13
DSP2RST 12
DSP3INT 11
DSP3RST 10
DIRCS 9
DIRINT 8
DIRRST 7
+3.3VST 6
FRXD 5
FTXD 4
OPTF 3
SPFOUT 2
NETSPDIF 1
TO NADG-9074 SD-9:E5
P3103B
TO NADG-9074 SD-9:E5
P3102B
TO NADG-9074 SD-9:D5
P3101B
P6853B
TO NAAR-9075 SD-8:F5
P6852B TO NAAR-9075 SD-8:F5
P6851B
TO NAAR-9075 SD-8:E5
TO NAAMP-9061 SD-4:G1-G3
P6240D
1 SPSL
2 SPSBL
3 SPL
1 SPR
2 SPSBR
3 SPSR
4 SPC
P6250E
TO NAAMP-9062 SD-4:D1-D4
Exept DC Type
C6818 102J
C6828 102J
ZONE2 R
P6808
Z2R 1
Z2R 2
GND Z2R 3
GND Z2R 4
JL6808
NAETC-9056
U12
SP TERMINAL PC BOARD

<Note>
SD-x:XY is short for Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.

NOTE

- THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER) ⊂ IS DC VOLTAGE.(NO INPUT SIGNAL).
- ALL PNP TRANSISTORS ARE EQUIVALENT TO 2SA1015-GR UNLESS OTHERWISE NOTED.
- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS (⊥⊤+) ARE IN uF/WV.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED. EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033uF
- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS. EX) ○○○ PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

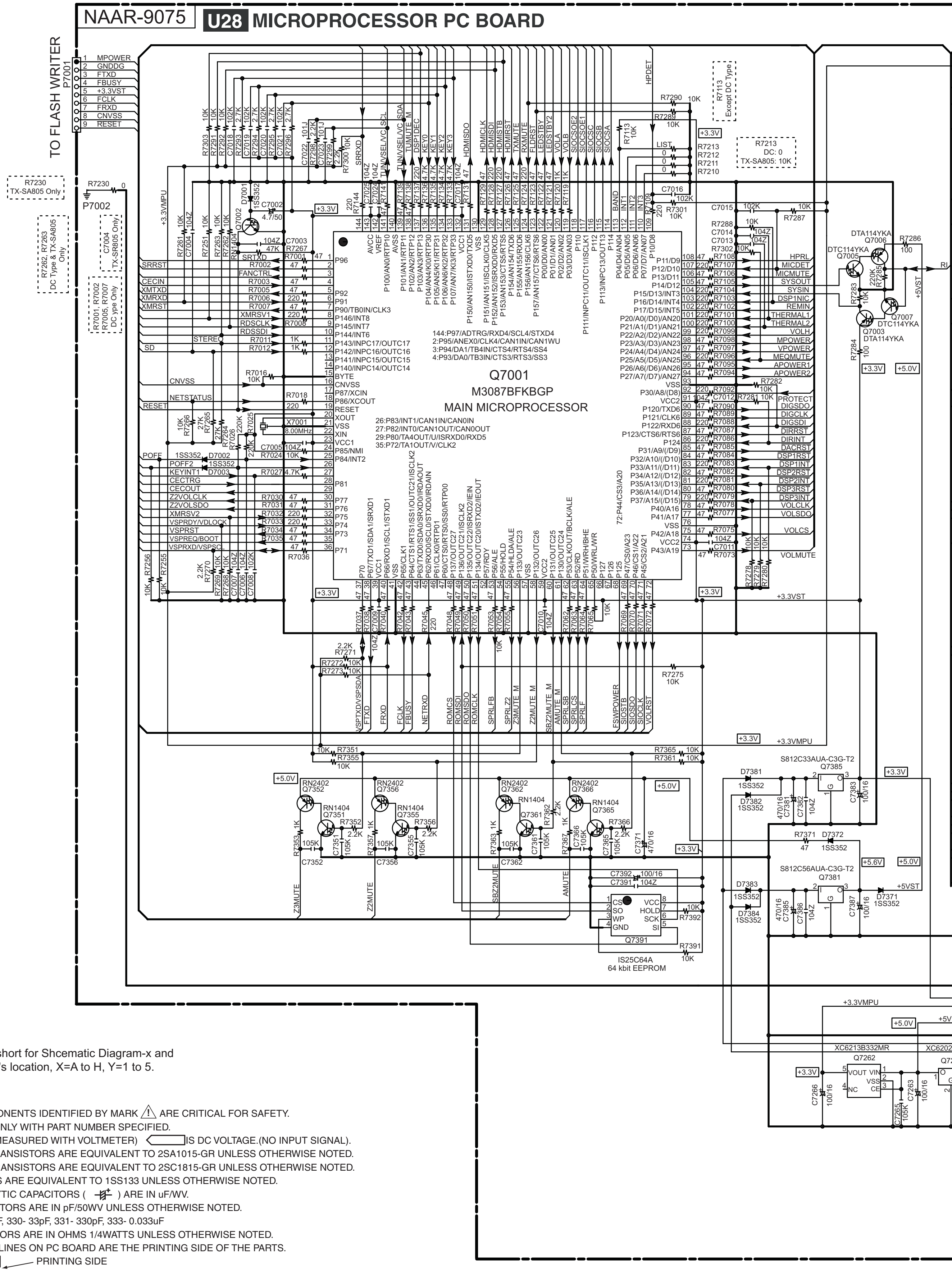

SPEAKER TERMINALS
P6140H
1 GND SPSL
2 GND SPSBL
3 GND SPL
4 GND SPR
5 GND SPSBR
6 GND SPSR
7 GND SPC
JL6900B
1 FAN GND
2 +12V FAN
3 FAN GND
+12V
+9VTU
GNDTU
GNDTU
1 +9VTU
2 GNDTU
3 GNDRL
4 SPRLZ2
5 SPRLSB
6 SPRLCS
7 SPRLFB
8 SPRLF
JL6901A
JL6901B
SPRLZ2
SPRLSB
SPRLCS
SPRLFB
SPRLF
+13.5V
R6900 15(1W)
R6901 15(1W)
C6800 103J
D6800 1SS133
RL6800
NRL-2P5A-DC12-187
C6801 103J
RL6801
C6805 103J
D6805 1SS133
RL6805
SBL
C6806 103J
RL6806
SBR
C6803 103J
D6803 1SS133
RL6803
SL SR
C6837 103J
D6817 1SS133
RL6817
Z2
C6802 103J
D6802 1SS133
RL6802
GND SPSL
GND SPSBL
GND SPL
GND SPC
GND SPSR
GND SPSBR
GND SPR
P6800
C6820 103J
FRONT L
P6801
C6821 103J
FRONT R
P6805
C6825 103J
SURROUND BACK L
P6806
C6826 103J
SURROUND BACK R
P6803
C6823 103J
SURROUND L
P6804
C6824 103J
SURROUND R
P6802
C6822 103J
CENTER
Exept DC Type
C6817
102J
P6807
C6827 103J
ZONE2 L
L6800 S-1.3C
R6800 22
R6810 22
FL
L6801 S-1.3C
R6801 22
R6811 22
FR
L6805 S-1.3C
R6805 22
R6815 22
SBL
L6806 S-1.3C
R6806 22
R6816 22
SBR
L6803 S-1.3C
R6803 22
R6813 22
SL
L6804 S-1.3C
R6804 22
R6814 22
SR
L6802 S-1.3C
R6802 22
R6812 22
CENTER
JL6808A

C6820-6828

Type	DC	DT	MP	MA	MK	MQ	MT
Rating	NO	103J	103J	103J	103J	103J	103J

SCHEMATIC DIAGRAM-8 (SD-8)

MICROPROCESSOR SECTION


A
B
C
D
1
2
3
4
5
NAAR-9075
U28 MICROPROCESSOR PC BOARD
TO FLASH WRITER
P7001
1 MPOWER
2 GNDDG
3 FTXD
4 FBUSY
5 +3.3VST
6 FCLK
7 FRXD
8 CNVSS
9 RESET
R7230 TX-SA805 Only
P7002
R7262, R7263 DC Type & TX-SA805 Only
C7004 TX-SR805 Only
R7001, R7002 R7005, R7007 DC ype Only
R7113 Except DC Type
R7213 DC: 0 TX-SA805: 10K
Q7001
M3087BFKBGP
MAIN MICROPROCESSOR
144:P97/ADTRG/RXD4/SCL4/STXD4
2:P95/ANEX0/CLK4/CAN1IN/CAN1WU
3:P94/DA1/TB4IN/CTS4/RTS4/SS4
4:P93/DA0/TB3IN/CTS3/RTS3/SS3
26:P83/INT1/CAN1IN/CAN0IN
27:P82/INT0/CAN0IN/CAN0OUT
29:P80/TA4OUT/U/ISRXD0/RXD5
35:P72/TA1OUT/V/CLK2
X7001 8.00MHz
SRRST
CECIN
XMTXD
XMRXD
XMRST
STEREO
SD
CNVSS
NETSTATUS
RESET
POFF
POFF2
KEYINT1
CECTRG
CECOUT
Z2VOLCLK
Z2VOLSDO
XMRSV2
VSPRDY/VDLOCK
VSPRST
VSPREQ/BOOT
VSPRXD/VSPSCL
SRTXD
FANCTRL
XMRSV1
RDSCLK
RDSSDI
HPRL
MICDET
MICMUTE
SYSOUT
SYSIN
DSP1NIC
REMIN
THERMAL1
THERMAL2
VOLH
MPOWER
VPOWER
MEQMUTE
APOWER1
APOWER2
PROTECT
DIGSDO
DIGCLK
DIGSDI
DIRRST
DIRINT
DACRST
DSP1RST
DSP1INT
DSP2RST
DSP2INT
DSP3RST
DSP3INT
VOLCLK
VOLSDO
VOLCS
VOLMUTE
SPTXD/VSPSDA
FTXD
FCLK
FBUSY
NETRXD
ROMCS
ROMSDI
ROMSDO
ROMCLK
SPRLFB
SPRLZ2
Z3MUTE_M
Z2MUTE_M
SBZ2MUTE_M
AMUTE_M
SPRLSB
SPRLS
SPRLF
FSWPOWER
SIOSTB
SIOSDO
SIOCLK
VOLRST
TUNSDA
TUNMUTE
DSP1DEC
KEY0
KEY1
KEY2
KEY3
HDMISDO
HDMICLK
HDMISDI
HDMISTB
HDMIRST
TXMUTE
RXMUTE
FLDRST
LEDSTBY
LEDSTBY2
VOLA
VOLB
SIOCSOE2
SIOCSOE1
SIOCSC
SIOCSB
SIOCSA
HPDET
LIST
BAND
Z3MUTE
Z2MUTE
SBZ2MUTE
AMUTE
RN2402 Q7352
RN1404 Q7351
RN2402 Q7356
RN1404 Q7355
RN2402 Q7362
RN1404 Q7361
RN2402 Q7366
RN1404 Q7365
Q7391
IS25C64A
64 kbit EEPROM
CS
SO
WP
GND
VCC
HOLD
SCK
SI
S812C33AUA-C3G-T2
Q7385
S812C56AUA-C3G-T2
Q7381
DTA114YKA Q7006
DTC114YKA Q7005
Q7003 DTA114YKA
Q7007 DTC114YKA
XC6213B332MR
Q7262
VOUT
VIN
VSS
CE
NC
+3.3V
+5.0V
+5.6V
+3.3VST
+3.3VMPU
+5VST

<Note>
SD-x:XY is short for Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.

NOTE

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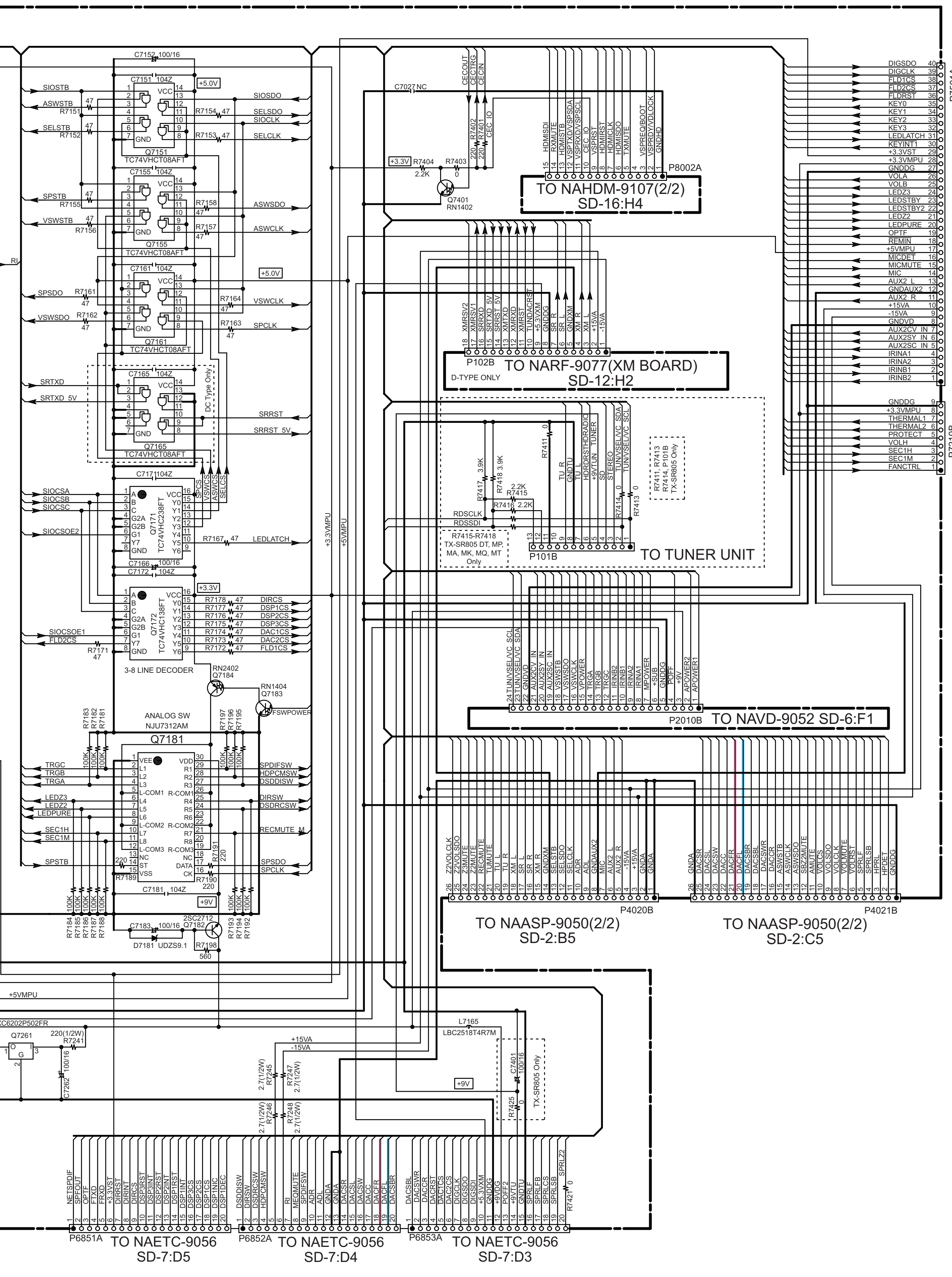
- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS ( ) ARE IN uF/WV.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED. EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033uF
- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS. EX) ○ ○ ○ PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

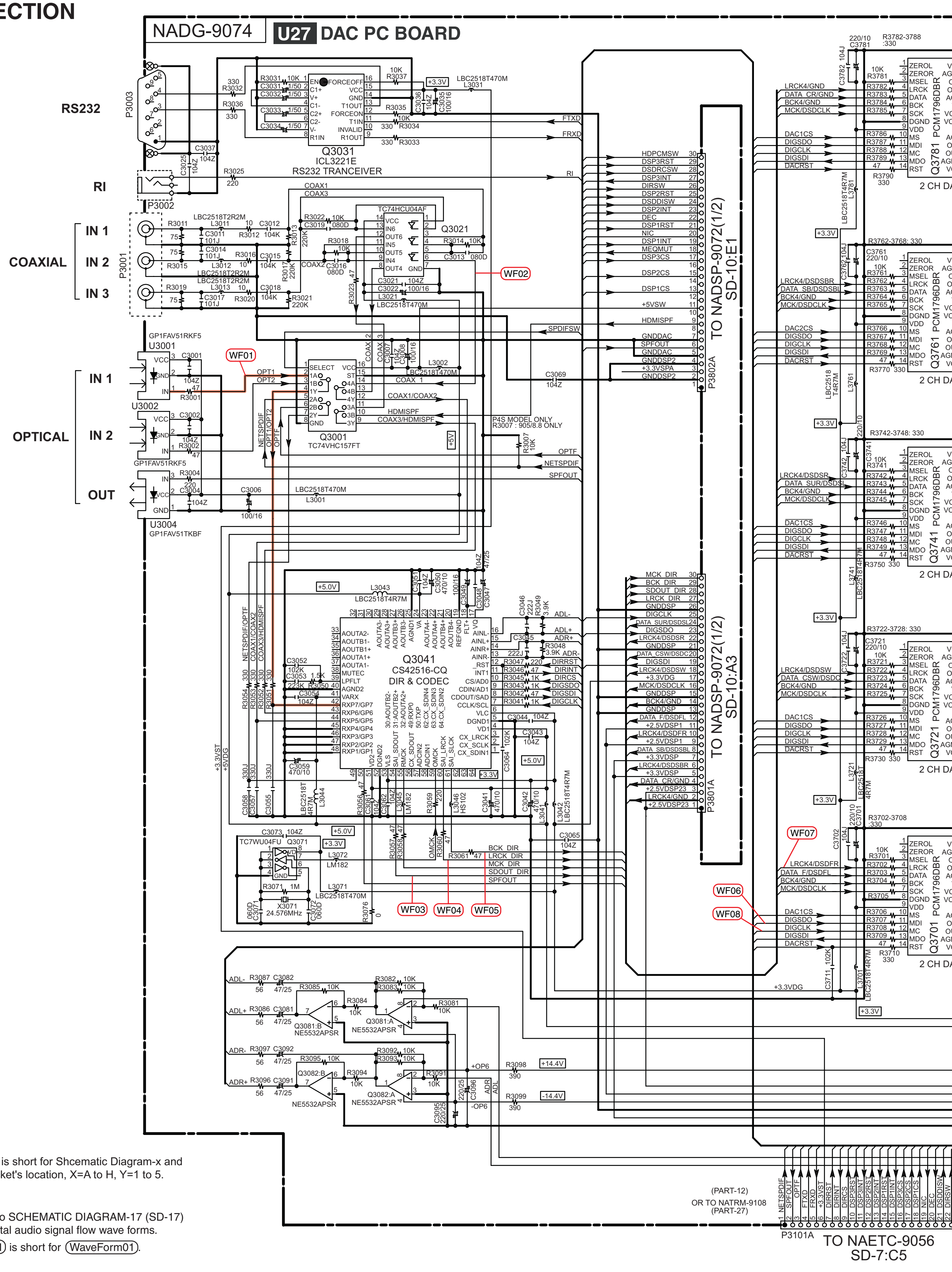

TO NAHDM-9107(2/2) SD-16:H4
P8002A
TO NADIS-9085 SD-13:B2
P7501A
TO NARF-9077(XM BOARD) SD-12:H2
P102B
D-TYPE ONLY
TO NAAF-9039 SD-5:A4
P7210B
TO TUNER UNIT
P101B
R7415-R7418 TX-SR805 DT, MP, MA, MK, MQ, MT Only
R7411, R7413 R7414, P101B TX-SR805 Only
TO NAVD-9052 SD-6:F1
P2010B
TO NAASP-9050(2/2) SD-2:B5
P4020B
TO NAASP-9050(2/2) SD-2:C5
P4021B
TO NAETC-9056 SD-7:D5
P6851A
TO NAETC-9056 SD-7:D4
P6852A
TO NAETC-9056 SD-7:D3
P6853A
Q7151 TC74VHCT08AFT
Q7155 TC74VHCT08AFT
Q7161 TC74VHCT08AFT
Q7165 TC74VHCT08AFT
DC Type Only
Q7171 TC74VHC238FT
Q7172 TC74VHC138FT
3-8 LINE DECODER
ANALOG SW NJU7312AM
Q7181
Q7182 2SC2712
D7181 UDZS9.1
Q7183 RN1404
Q7184 RN2402
Q7401 RN1402
Q7261
L7165 LBC2518T4R7M
C7401 100/16 TX-SR805 Only
+5.0V
+3.3V
+9V
+3.3VMPU
+5VMPU
+15VA
-15VA
SIOSTB
ASWSTB
SELSTB
SIOSDO
SELSDO
SIOCLK
SELCLK
SPSTB
VSWSTB
ASWSDO
ASWCLK
SPSDO
VSWSDO
VSWCLK
SPCLK
SRTXD
SRTXD_5V
SRRST
SRRST_5V
SIOCSA
SIOCSB
SIOCSC
SIOCSOE2
LEDLATCH
SIOCSOE1
FLD2CS
DIRCS
DSP1CS
DSP2CS
DSP3CS
DAC1CS
DAC2CS
FLD1CS
FSWPOWER
TRGC
TRGB
TRGA
LEDZ3
LEDZ2
LEDPURE
SEC1H
SEC1M
SPDIFSW
HDPCMSW
DSDDISW
DIRSW
DSDRCSW
RECMUTE_M
SPSDO
SPCLK
RDSCLK
RDSSDI
TX-SR805/SA805

A B C D

SCHEMATIC DIAGRAM-9 (SD-9)

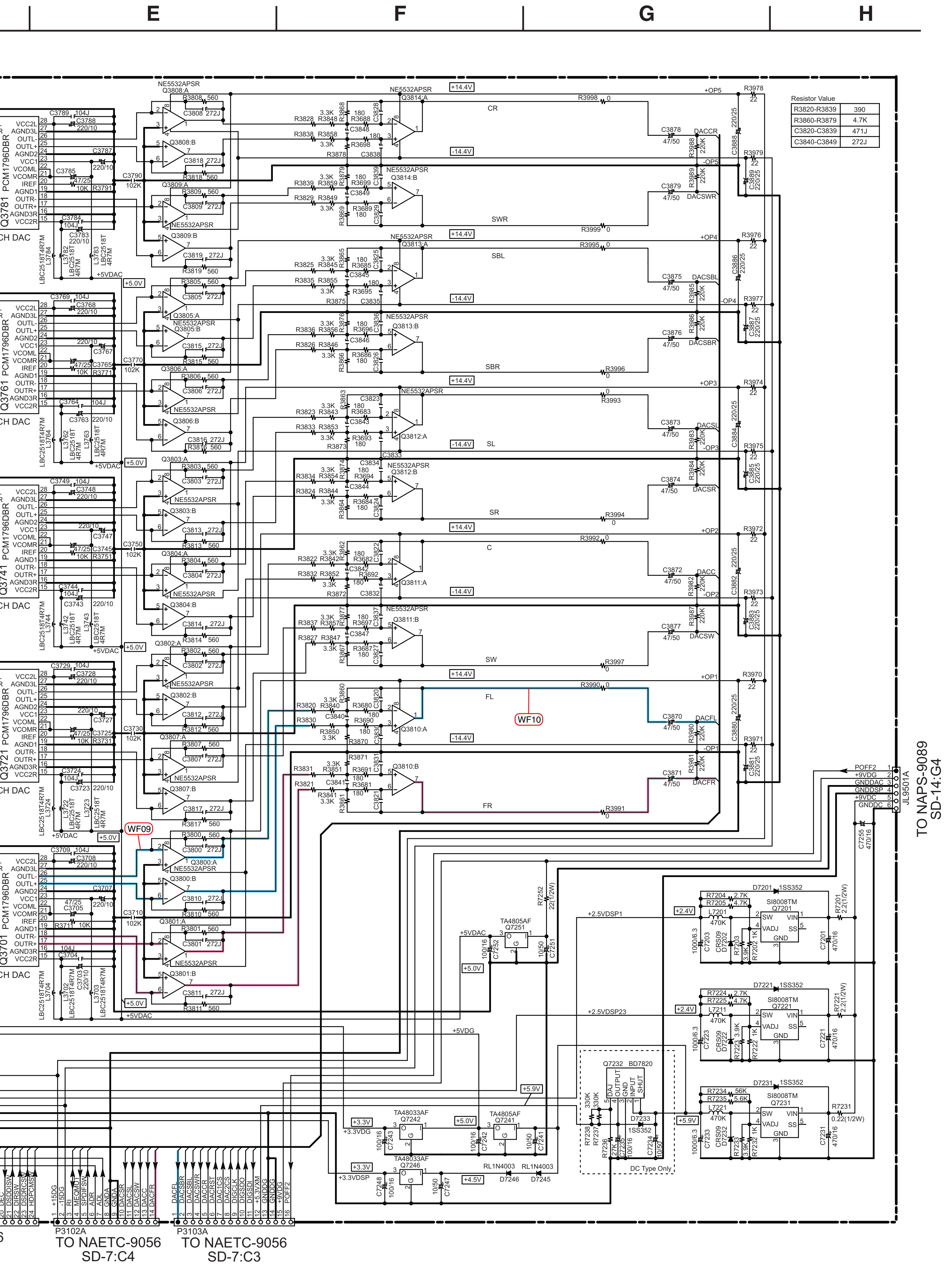
DAC SECTION

1 2 3 4 5


NADG-9074
U27 DAC PC BOARD
RS232
P3003
RI
P3002
COAXIAL
IN 1
IN 2
IN 3
P3001
OPTICAL
IN 1
IN 2
OUT
U3001
GP1FAV51RKF5
U3002
GP1FAV51RKF5
U3004
GP1FAV51TKBF
Q3031
ICL3221E
RS232 TRANCEIVER
TC74HCU04AF
Q3021
Q3001
TC74VHC157FT
WF01
WF02
WF03
WF04
WF05
WF06
WF07
WF08
Q3041
CS42516-CQ
DIR & CODEC
Q3071
TC7WU04FU
X3071
24.576MHz
Q3081:A
Q3081:B
NE5532APSR
Q3082:A
Q3082:B
NE5532APSR
P4S MODEL ONLY
R3007 : 905/8.8 ONLY
FTXD
FRXD
SPDIFSW
OPTF
NETSPDIF
SPFOUT
P3802A
TO NADSP-9072(1/2)
SD-10:E1
P3801A
TO NADSP-9072(1/2)
SD-10:A3
Q3781
PCM1796DBR
Q3761
PCM1796DBR
Q3741
PCM1796DBR
Q3721
PCM1796DBR
Q3701
PCM1796DBR
2 CH DA
(PART-12)
OR TO NATRM-9108
(PART-27)
P3101A
TO NAETC-9056
SD-7:C5

<Note>
SD-x:XY is short for Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.

<Note>
1. Refer to SCHEMATIC DIAGRAM-17 (SD-17) for digital audio signal flow wave forms.
2. (WF01) is short for (WaveForm01).



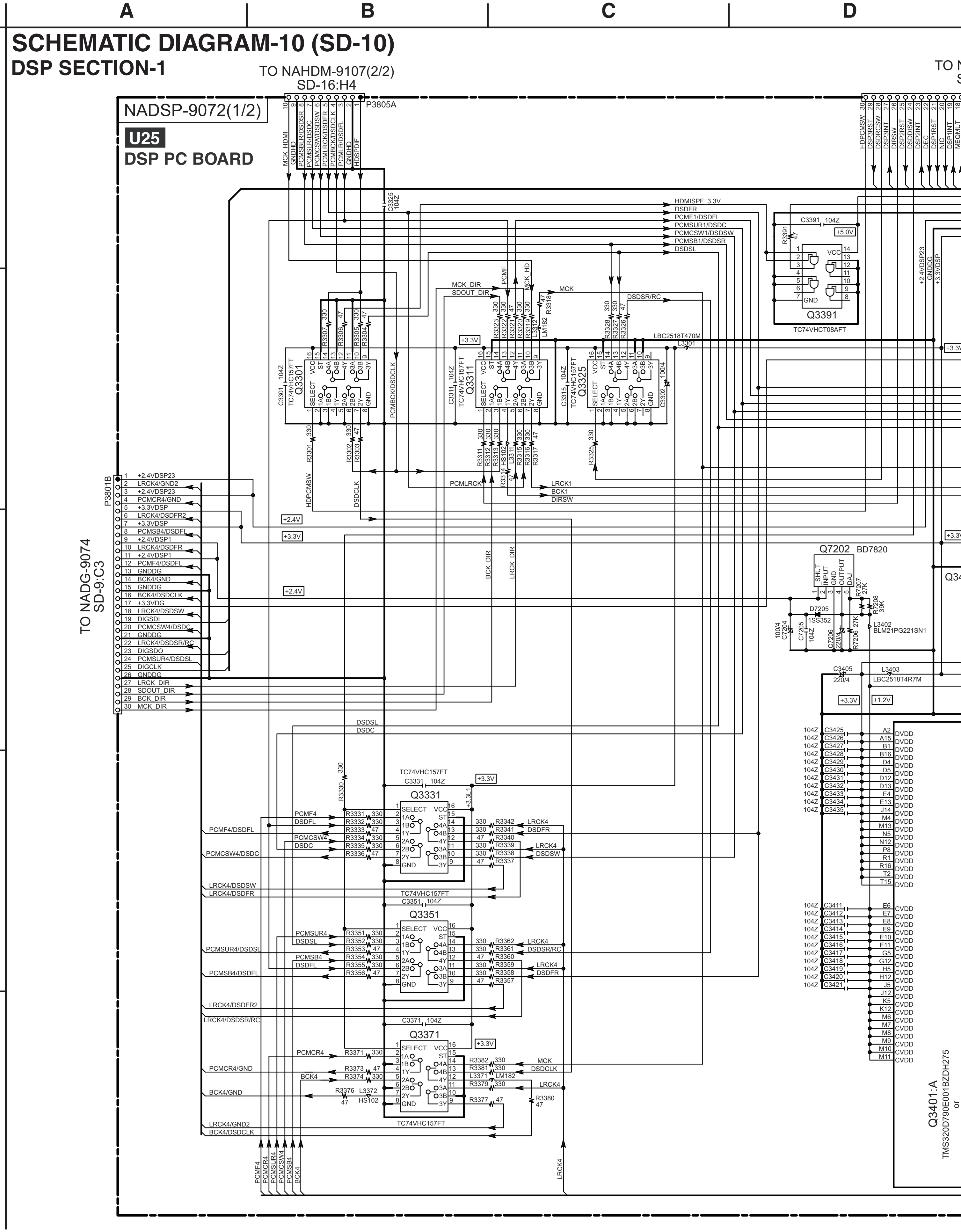
Resistor Value

R3820-R3839	390
R3860-R3879	4.7K
C3820-C3839	471J
C3840-C3849	272J

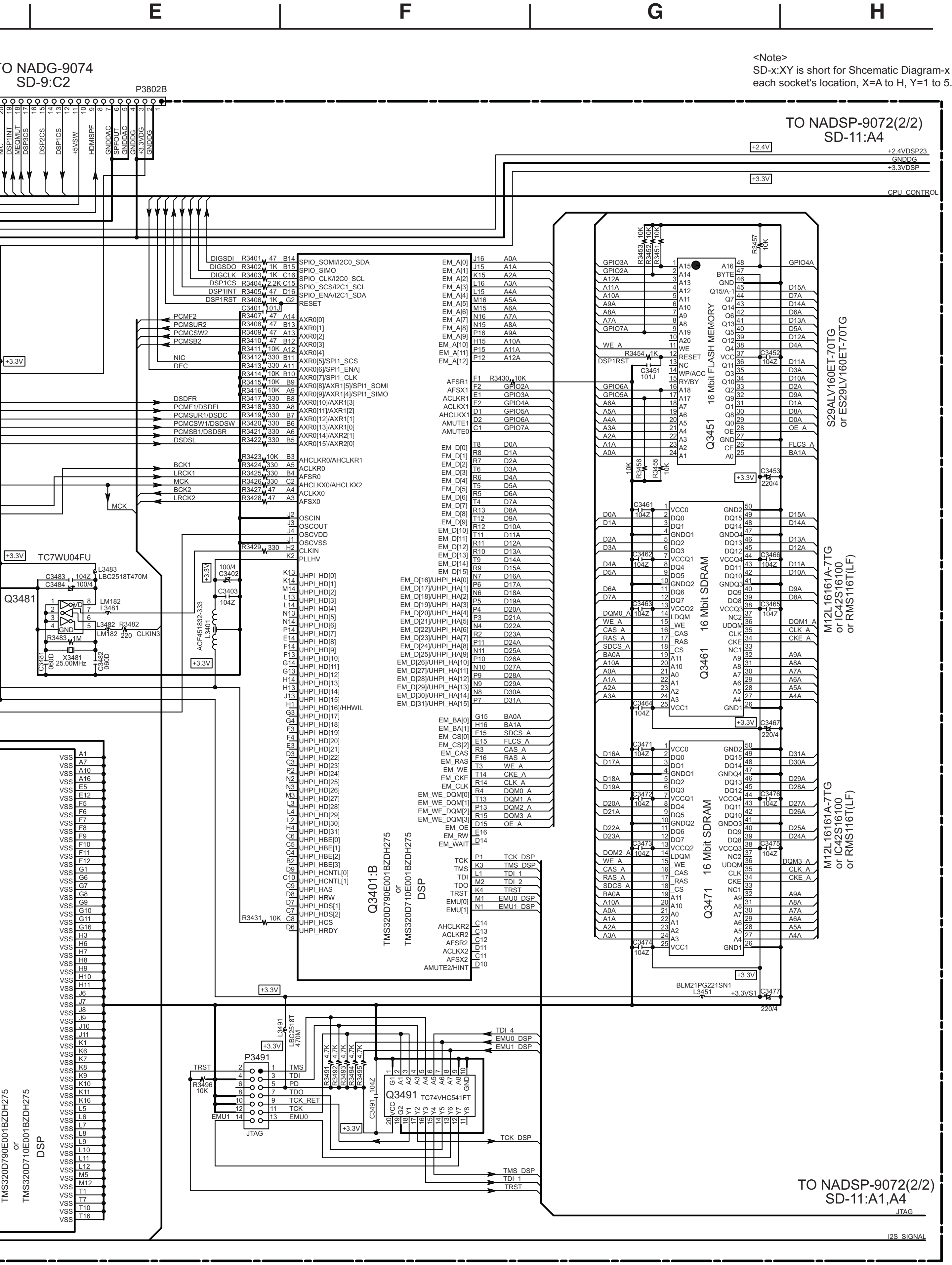
E
F
G
H
Q3781 PCM1796DBR
Q3761 PCM1796DBR
Q3741 PCM1796DBR
Q3721 PCM1796DBR
Q3701 PCM1796DBR
CH DAC
VCC2L
AGND3L
OUTL-
OUTL+
AGND2
VCC1
VCOML
VCOMR
IREF
AGND1
OUTR-
OUTR+
AGND3R
VCC2R
NE5532APSR
Q3808:A
Q3808:B
Q3809:A
Q3809:B
Q3805:A
Q3805:B
Q3806:A
Q3806:B
Q3803:A
Q3803:B
Q3804:A
Q3804:B
Q3802:A
Q3802:B
Q3807:A
Q3807:B
Q3800:A
Q3800:B
Q3801:A
Q3801:B
Q3814:A
Q3814:B
Q3813:A
Q3813:B
Q3812:A
Q3812:B
Q3811:A
Q3811:B
Q3810:A
Q3810:B
+14.4V
-14.4V
+5.0V
+5VDAC
CR
SWR
SBL
SBR
SL
SR
C
SW
FL
FR
+OP5
-OP5
+OP4
-OP4
+OP3
-OP3
+OP2
-OP2
+OP1
-OP1
DACCR
DACSWR
DACSBL
DACSBR
DACSL
DACSR
DACC
DACSW
DACFL
DACFR
WF09
WF10
POFF2
+9VDG
GNDDAC
GNDDSP
+9VDC
GNDDC
JL9501A
TO NAPS-9089
SD-14:G4
+2.5VDSP1
+2.5VDSP23
+5VDG
+3.3VDG
+3.3VDSP
+5.9V
+2.4V
+3.3V
+4.5V
TA4805AF Q7251
TA4805AF Q7241
TA48033AF Q7242
TA48033AF Q7246
SI8008TM Q7201
SI8008TM Q7221
SI8008TM Q7231
Q7232 BD7820
DC Type Only
D7201 1SS352
D7221 1SS352
D7231 1SS352
D7233 1SS352
RL1N4003 D7246
RL1N4003 D7245
R7252 22(1/2W)
R7201 2.2(1/2W)
R7221 2.2(1/2W)
R7231 0.22(1/2W)
C7255 470/16
P3102A
TO NAETC-9056
SD-7:C4
P3103A
TO NAETC-9056
SD-7:C3
DACFL
DACSBL
DACSWR
DACCR
DACSL
DAC1CS
DIGCLK
DIGSDO
DIGSDI
+3.3VM
GNDDG
+9VDG
POFF2
+15DG
-15DG
RI
MEQMUTE
SPDIFSW
ADR
ADL
GNDA
DACSR
DACSW
DACC
DACFR
DEC
DSPDISW
DIRSW
DSDRCS
HDPCMSW

SCHEMATIC DIAGRAM-10 (SD-10)

DSP SECTION-1

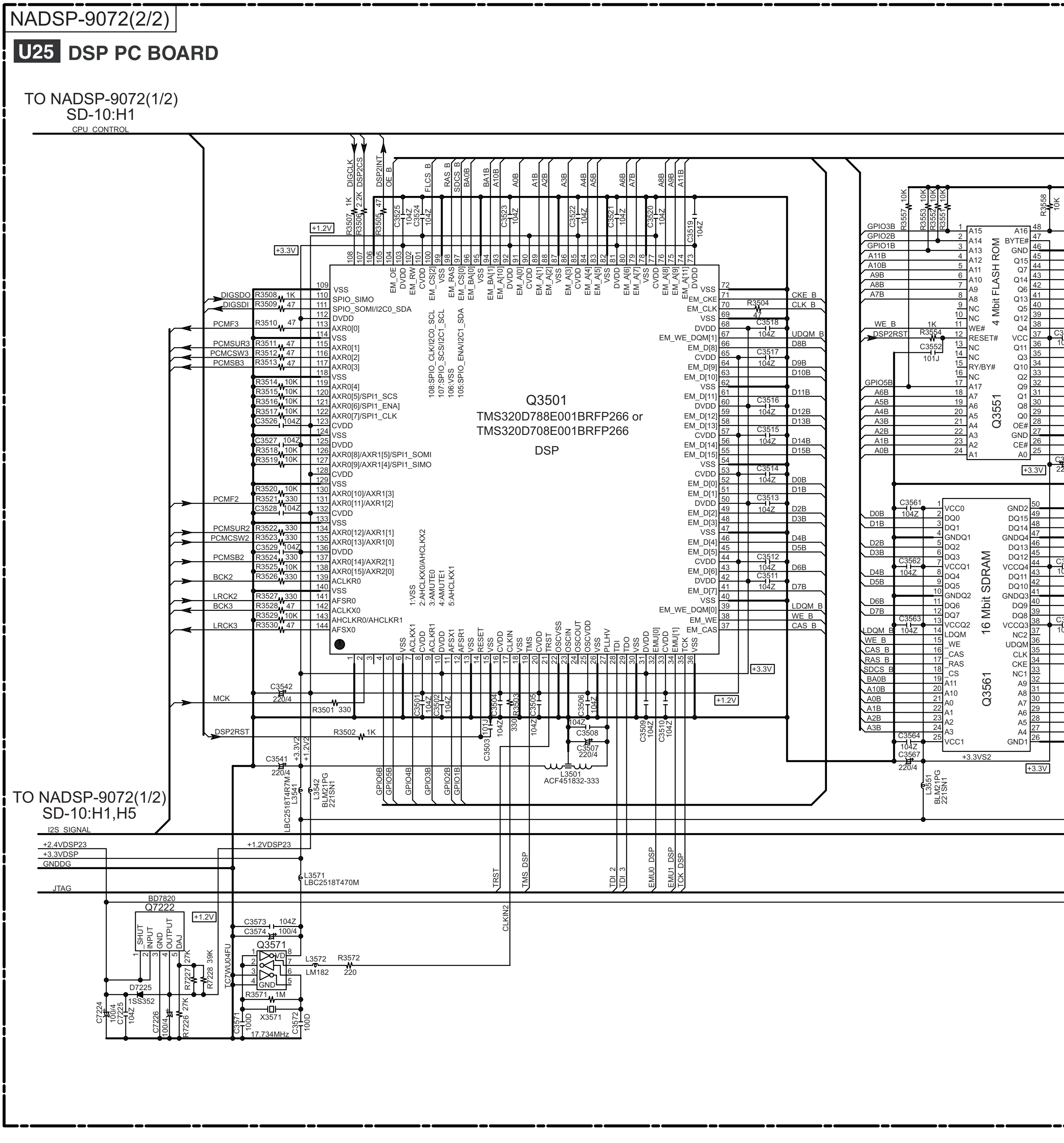

A
B
C
D
1
2
3
4
5
TO NAHDM-9107(2/2)
SD-16:H4
P3805A
NADSP-9072(1/2)
U25
DSP PC BOARD
MCK_HDMI
GNDHD
PCMSBLR/DSDSR
PCMSLR/DSDC
PCMCSW/DSDSW
PCMLRCK/DSDFR
PCMBCK/DSDCLK
PCMLR/DSDFL
GNDHD
HDSPDIF
C3325 104Z
HDMISPF_3.3V
DSDFR
PCMF1/DSDFL
PCMSUR1/DSDC
PCMCSW1/DSDSW
PCMSB1/DSDSR
DSDSL
MCK_DIR
SDOUT_DIR
PCMF
MCK_HD
MCK
R3318 47
DSDSR/RC
LM182
LBC2518T470M
L3301
+3.3V
Q3301
TC74VHC157FT
C3301 104Z
Q3311
C3311 104Z
Q3325
C3315 104Z
C3302 100/4
SELECT
VCC
ST
GND
PCMBCK/DSDCLK
R3301
R3302
R3303
R3304
R3305
R3306
R3307
R3311
R3312
R3313
R3314
R3315
R3316
R3317
R3319
R3320
R3321
R3322
R3323
R3325
R3326
R3327
R3328
HS102
L3311
L3312
330
47
HDPCMSW
DSDCLK
PCMLRCK
LRCK1
BCK1
DIRSW
BCK_DIR
LRCK_DIR
P3801B
TO NADG-9074
SD-9:C3
1 +2.4VDSP23
2 LRCK4/GND2
3 +2.4VDSP23
4 PCMCR4/GND
5 +3.3VDSP
6 LRCK4/DSDFR2
7 +3.3VDSP
8 PCMSB4/DSDFL
9 +2.4VDSP1
10 LRCK4/DSDFR
11 +2.4VDSP1
12 PCMF4/DSDFL
13 GNDDG
14 BCK4/GND
15 GNDDG
16 BCK4/DSDCLK
17 +3.3VDG
18 LRCK4/DSDSW
19 DIGSDI
20 PCMCSW4/DSDC
21 GNDDG
22 LRCK4/DSDSR/RC
23 DIGSDO
24 PCMSUR4/DSDSL
25 DIGCLK
26 GNDDG
27 LRCK_DIR
28 SDOUT_DIR
29 BCK_DIR
30 MCK_DIR
+2.4V
+3.3V
+2.4V
TO N
HDPCMSW 30
DSP3RST 29
DSPRCSW 28
DSP3INT 27
DIRSW 26
DSP2RST 25
DSDDISW 24
DSP2INT 23
DEC 22
DSP1RST 21
NIC 20
DSP1INT 19
MEQMUT 18
C3391 104Z
R3391 47
+5.0V
Q3391
TC74VHCT08AFT
+2.4VDSP23
GNDDG
+3.3VDSP
+3.3V
Q7202 BD7820
SHUT
INPUT
GND
OUTPUT
DAJ
R7207 27K
R7208 39K
D7205 1SS352
C7204 100/4
C7205 104Z
C7206 220/4
R7206 27K
L3402 BLM21PG221SN1
C3405 220/4
L3403 LBC2518T4R7M
+3.3V
+1.2V
Q34
C3425
C3426
C3427
C3428
C3429
C3430
C3431
C3432
C3433
C3434
C3435
104Z
A2 DVDD
A15 DVDD
B1 DVDD
B16 DVDD
D4 DVDD
D5 DVDD
D12 DVDD
D13 DVDD
E4 DVDD
E13 DVDD
J14 DVDD
M4 DVDD
M13 DVDD
N5 DVDD
N12 DVDD
P8 DVDD
R1 DVDD
R16 DVDD
T2 DVDD
T15 DVDD
C3411
C3412
C3413
C3414
C3415
C3416
C3417
C3418
C3419
C3420
C3421
E6 CVDD
E7 CVDD
E8 CVDD
E9 CVDD
E10 CVDD
E11 CVDD
G5 CVDD
G12 CVDD
H5 CVDD
H12 CVDD
J5 CVDD
J12 CVDD
K5 CVDD
K12 CVDD
M6 CVDD
M7 CVDD
M8 CVDD
M9 CVDD
M10 CVDD
M11 CVDD
Q3401:A
TMS320D790E001BZDH275
or
DSDSL
DSDC
R3330 330
TC74VHC157FT
C3331 104Z
Q3331
+3.3V
L3331
PCMF4
DSDFL
PCMF4/DSDFL
PCMCSW4
DSDC
PCMCSW4/DSDC
R3331
R3332
R3333
R3334
R3335
R3336
R3337
R3338
R3339
R3340
R3341
R3342
LRCK4
DSDFR
DSDSW
LRCK4/DSDSW
LRCK4/DSDFR
C3351 104Z
Q3351
PCMSUR4
DSDSL
PCMSUR4/DSDSL
PCMSB4
PCMSB4/DSDFL
R3351
R3352
R3353
R3354
R3355
R3356
R3357
R3358
R3359
R3360
R3361
R3362
DSDSR/RC
LRCK4/DSDFR2
LRCK4/DSDSR/RC
C3371 104Z
Q3371
PCMCR4
PCMCR4/GND
BCK4
BCK4/GND
R3371
R3373
R3374
R3376 47
L3372 HS102
R3377 47
R3379 330
R3380 47
R3381 330
R3382 330
L3371 LM182
MCK
DSDCLK
LRCK4
LRCK4/GND2
BCK4/DSDCLK
PCMF4
PCMCR4
PCMSUR4
PCMCSW4
PCMSB4
BCK4
LRCK4

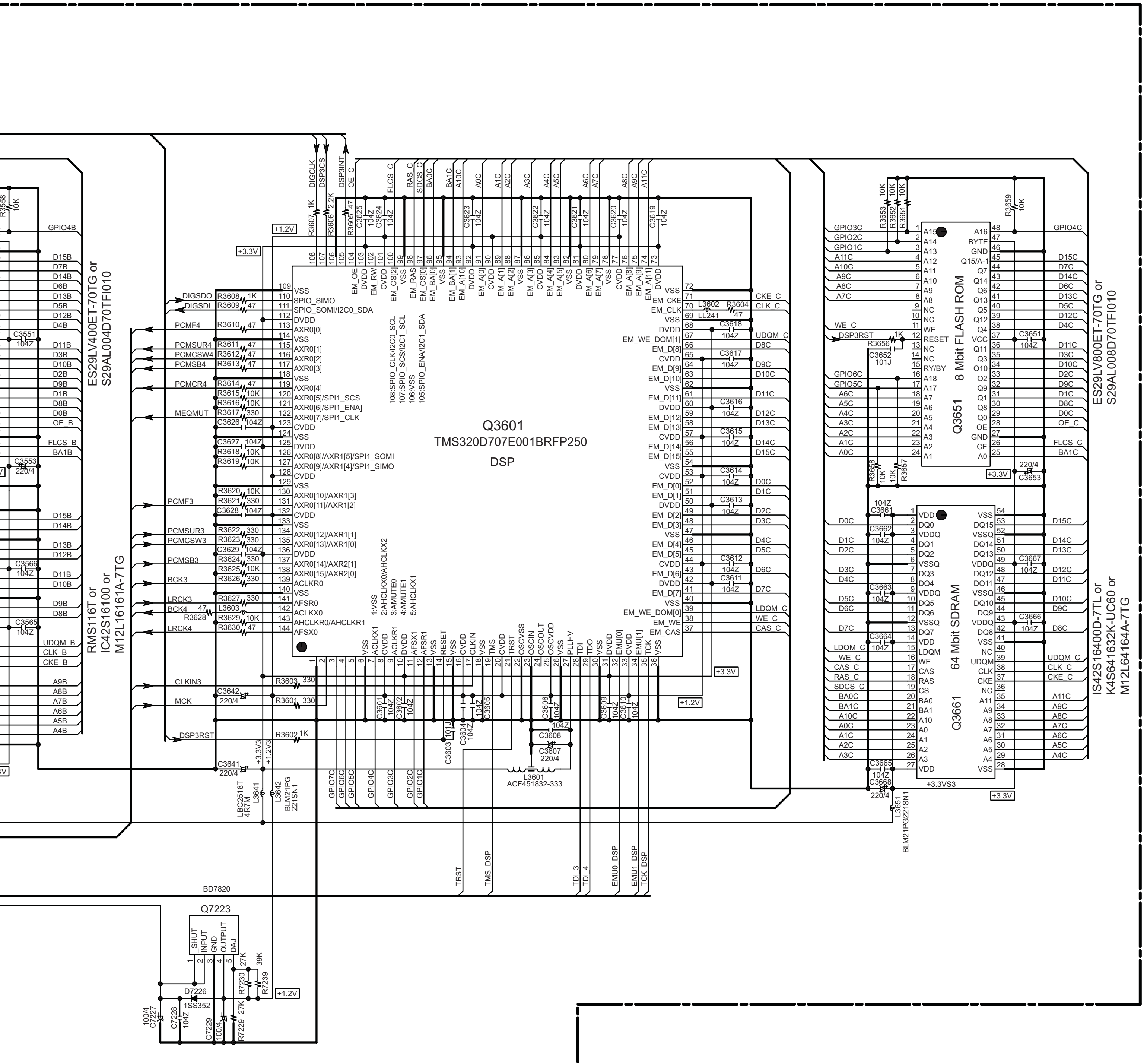
<Note>
SD-x:XY is short for Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.


E
F
G
H
TO NADG-9074
SD-9:C2
P3802B
NIC
DSP1INT
MFOMUT
DSP3CS
DSP2CS
DSP1CS
+5VSW
HDMISPF
GNDDAC
SPFOUT
GNDDAC
GNDDG
+3.3VDG
GNDDG
TO NADSP-9072(2/2)
SD-11:A4
+2.4V
+2.4VDSP23
GNDDG
+3.3VDSP
+3.3V
CPU_CONTROL
DIGSDI
DIGSDO
DIGCLK
DSP1CS
DSP1INT
DSP1RST
PCMF2
PCMSUR2
PCMCSW2
PCMSB2
NIC
DEC
DSDFR
PCMF1/DSDFL
PCMSUR1/DSDC
PCMCSW1/DSDSW
PCMSB1/DSDSR
DSDSL
BCK1
LRCK1
MCK
BCK2
LRCK2
MCK
SPIO_SOMI/I2C0_SDA
SPIO_SIMO
SPIO_CLK/I2C0_SCL
SPIO_SCS/I2C1_SCL
SPIO_ENA/I2C1_SDA
RESET
AXR0[0]
AXR0[1]
AXR0[2]
AXR0[3]
AXR0[4]
AXR0[5]/SPI1_SCS
AXR0[6]/SPI1_ENA
AXR0[7]/SPI1_CLK
AXR0[8]/AXR1[5]/SPI1_SOMI
AXR0[9]/AXR1[4]/SPI1_SIMO
AXR0[10]/AXR1[3]
AXR0[11]/AXR1[2]
AXR0[12]/AXR1[1]
AXR0[13]/AXR1[0]
AXR0[14]/AXR2[1]
AXR0[15]/AXR2[0]
AHCLKR0/AHCLKR1
ACLKR0
AFSR0
AHCLKX0/AHCLKX2
ACLKX0
AFSX0
OSCIN
OSCOUT
OSCVDD
OSCVSS
CLKIN
PLLHV
UHPI_HD[0] … UHPI_HD[31]
UHPI_HBE[0]
UHPI_HBE[1]
UHPI_HBE[2]
UHPI_HBE[3]
UHPI_HCNTL[0]
UHPI_HCNTL[1]
UHPI_HAS
UHPI_HRW
UHPI_HDS[1]
UHPI_HDS[2]
UHPI_HCS
UHPI_HRDY
EM_A[0] … EM_A[12]
AFSR1
AFSX1
ACLKR1
ACLKX1
AHCLKR1
AHCLKX1
AMUTE1
AMUTE0
EM_D[0] … EM_D[15]
EM_D[16]/UHPI_HA[0] … EM_D[31]/UHPI_HA[15]
EM_BA[0]
EM_BA[1]
EM_CS[0]
EM_CS[2]
EM_CAS
EM_RAS
EM_WE
EM_CKE
EM_CLK
EM_WE_DQM[0]
EM_WE_DQM[1]
EM_WE_DQM[2]
EM_WE_DQM[3]
EM_OE
EM_RW
EM_WAIT
TCK
TMS
TDI
TDO
TRST
EMU[0]
EMU[1]
AHCLKR2
ACLKR2
AFSR2
ACLKX2
AFSX2
AMUTE2/HINT
Q3401:B
TMS320D790E001BZDH275
or
TMS320D710E001BZDH275
DSP
A0A … A12A
GPIO2A
GPIO3A
GPIO4A
GPIO5A
GPIO6A
GPIO7A
D0A … D31A
BA0A
BA1A
SDCS_A
FLCS_A
CAS_A
RAS_A
WE_A
CKE_A
CLK_A
DQM0_A
DQM1_A
DQM2_A
DQM3_A
OE_A
TCK_DSP
TMS_DSP
TDI_1
TDI_2
TRST
EMU0_DSP
EMU1_DSP
R3401 … R3431
C3401
TC7WU04FU
Q3481
L3483
LBC2518T470M
C3483
104Z
C3484
100/4
LM182
L3481
L3482
R3482
220
CLKIN3
R3483
1M
X3481
25.00MHz
C3481
060D
C3482
060D
VD
GND
C3402
100/4
C3403
104Z
ACF451832-333
L3401
Q3451
16 Mbit FLASH MEMORY
S29AL160ET-70TG
or ES29LV160ET-70TG
A15
A14
A13
A12
A11
A10
A9
A8
A19
A20
WE
RESET
NC
WP/ACC
RY/BY
A18
A17
A7
A6
A5
A4
A3
A2
A1
A16
BYTE
GND
Q15/A-1
Q7
Q14
Q6
Q13
Q5
Q12
Q4
VCC
Q11
Q3
Q10
Q2
Q9
Q1
Q8
Q0
OE
CE
A0
R3453
R3452
R3451
10K
R3457
R3454
1K
C3451
101J
C3452
104Z
R3456
R3455
C3453
220/4
Q3461
16 Mbit SDRAM
M12L16161A-7TG
or IC42S16100
or RMS116T(LF)
VCC0
DQ0
DQ1
GNDQ1
DQ2
DQ3
VCCQ1
DQ4
DQ5
GNDQ2
DQ6
DQ7
VCCQ2
LDQM
_WE
_CAS
_RAS
_CS
A11
A10
A0
A1
A2
A3
VCC1
GND2
DQ15
DQ14
GNDQ4
DQ13
DQ12
VCCQ4
DQ11
DQ10
GNDQ3
DQ9
DQ8
VCCQ3
NC2
UDQM
CLK
CKE
NC1
A9
A8
A7
A6
A5
A4
GND1
C3461
C3462
C3463
C3464
C3465
C3466
C3467
Q3471
16 Mbit SDRAM
M12L16161A-7TG
or IC42S16100
or RMS116T(LF)
C3471
C3472
C3473
C3474
C3475
C3476
C3477
BLM21PG221SN1
L3451
+3.3VS1
VSS
A1
A7
A10
A16
E5
E12
F5
F6
F7
F8
F9
F10
F11
F12
G1
G6
G7
G8
G9
G10
G11
G16
H3
H6
H7
H8
H9
H10
H11
J6
J7
J8
J9
J10
J11
K1
K6
K7
K8
K9
K10
K11
K16
L5
L6
L7
L8
L9
L10
L11
L12
M5
M12
T1
T7
T10
T16
TMS320D790E001BZDH275
or
TMS320D710E001BZDH275
DSP
L3491
LBC2518T
470M
P3491
JTAG
TRST
R3496
10K
EMU1
TMS
TDI
PD
TDO
TCK_RET
TCK
EMU0
R3491
R3492
R3493
R3494
R3495
4.7K
C3491
104Z
Q3491
TC74VHC541FT
G1
A1
A2
A3
A4
A5
A6
A7
A8
GND
VCC
G2
Y1
Y2
Y3
Y4
Y5
Y6
Y7
Y8
TDI_4
EMU0_DSP
EMU1_DSP
TCK_DSP
TMS_DSP
TDI_1
TRST
TO NADSP-9072(2/2)
SD-11:A1,A4
JTAG
I2S_SIGNAL

SCHEMATIC DIAGRAM-11 (SD-11)

DSP SECTION-2


1
2
3
4
5
NADSP-9072(2/2)
U25 DSP PC BOARD
TO NADSP-9072(1/2)
SD-10:H1
CPU_CONTROL
Q3501
TMS320D788E001BRFP266 or
TMS320D708E001BRFP266
DSP
DIGSDO
DIGSDI
PCMF3
PCMSUR3
PCMCSW3
PCMSB3
PCMF2
PCMSUR2
PCMCSW2
PCMSB2
BCK2
LRCK2
BCK3
LRCK3
MCK
DSP2RST
DIGCLK
DSP2CS
DSP2INT
OE_B
FLCS_B
RAS_B
SDCS_B
BA0B
BA1B
A10B
CKE_B
CLK_B
UDQM_B
LDQM_B
WE_B
CAS_B
+1.2V
+3.3V
R3501 330
R3502 1K
R3504 47
C3541 220/4
C3542 220/4
L3501
ACF451832-333
L3541
LBC2518T4R7M
L3542
BLM21PG
221SN1
GPIO6B
GPIO5B
GPIO4B
GPIO3B
GPIO2B
GPIO1B
TO NADSP-9072(1/2)
SD-10:H1,H5
I2S_SIGNAL
+2.4VDSP23
+3.3VDSP
GNDDG
JTAG
+1.2VDSP23
L3571
LBC2518T470M
TRST
TMS_DSP
CLKIN2
TDI_2
TDI_3
EMU0_DSP
EMU1_DSP
TCK_DSP
BD7820
Q7222
SHUT
INPUT
GND
OUTPUT
DAJ
D7225
1SS352
R7227 27K
R7228 39K
R7226 27K
C7224 100/4
C7225 104Z
C7226 100/4
C3573 104Z
C3574 100/4
Q3571
TC7WU04FU
L3572
LM182
R3572 220
R3571 1M
X3571
17.734MHz
C3571 100D
C3572 100D
4 Mbit FLASH ROM
Q3551
16 Mbit SDRAM
Q3561
C3552 101J
R3554 1K
C3561 104Z
C3562 104Z
C3563 104Z
C3564 104Z
C3567 220/4
L3551
BLM21PG
221SN1
+3.3VS2


Q3601
TMS320D707E001BRFP250
DSP
Q3651
8 Mbit FLASH ROM
ES29LV800ET-70TG or
S29AL008D70TFI010
Q3661
64 Mbit SDRAM
IS42S16400D-7TL or
K4S641632K-UC60 or
M12L64164A-7TG
ES29LV400ET-70TG or
S29AL004D70TFI010
RMS116T or
IC42S16100 or
M12L16161A-7TG
Q7223
D7226
1SS352
L3601
ACF451832-333
L3641
LBC2518T
4R7M
L3642
BLM21PG
221SN1
L3651
BLM21PG221SN1
BD7820
+3.3V
+1.2V
+3.3VS3
DIGSDO
DIGSDI
PCMF4
PCMSUR4
PCMCSW4
PCMSB4
PCMCR4
MEQMUT
PCMF3
PCMSUR3
PCMCSW3
PCMSB3
BCK3
LRCK3
BCK4
LRCK4
CLKIN3
MCK
DSP3RST
DIGCLK
DSP3CS
DSP3INT
TRST
TMS_DSP
TDI_3
TDI_4
EMU0_DSP
EMU1_DSP
TCK_DSP

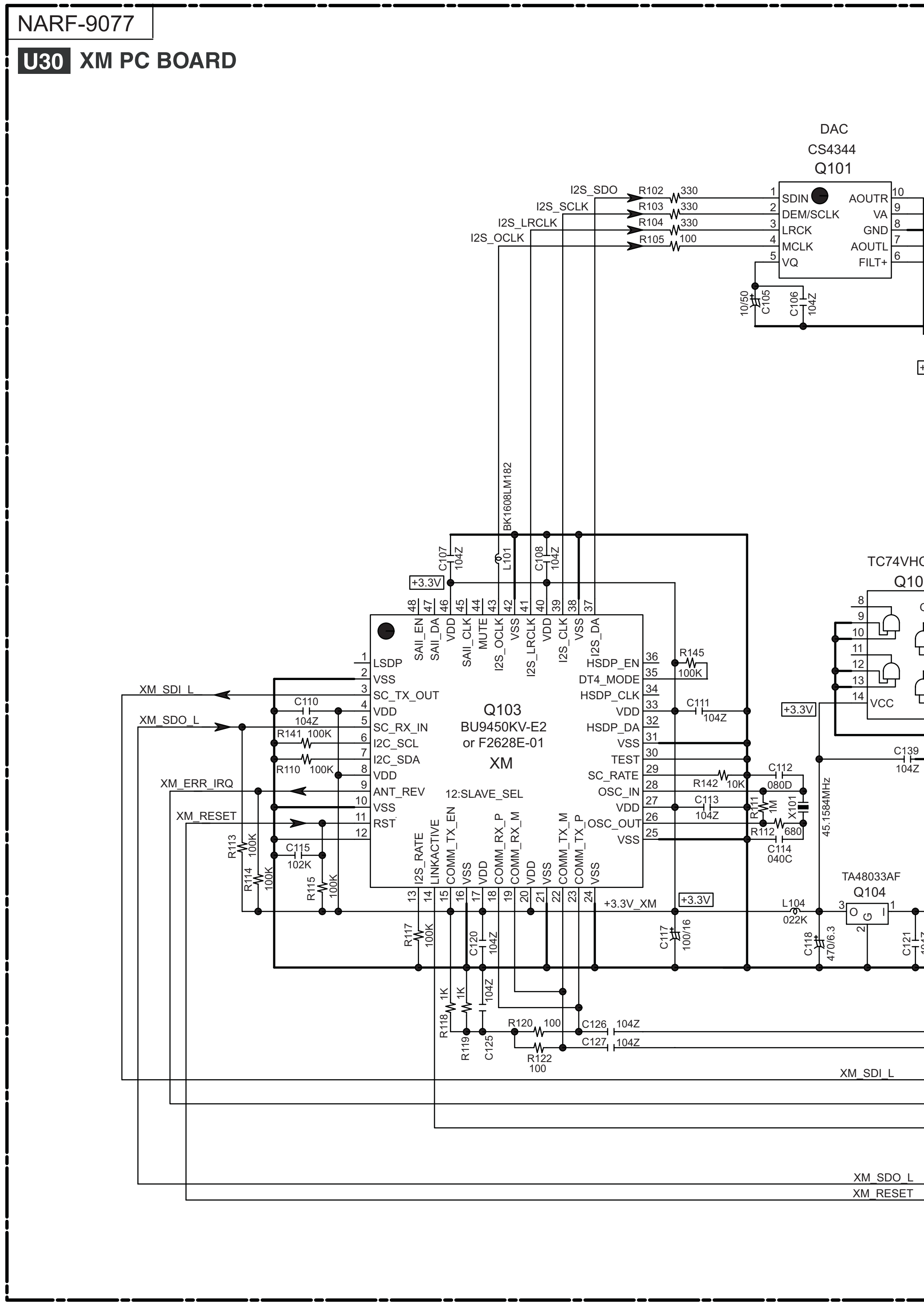
NOTE

- THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER) ⟸ IS DC VOLTAGE.(NO INPUT SIGNAL).
- ALL PNP TRANSISTORS ARE EQUIVALENT TO 2SA1015-GR UNLESS OTHERWISE NOTED.
- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS (⊣⊢) ARE IN uF/WV.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
  EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033uF
- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.
  EX) ○○○ ← PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

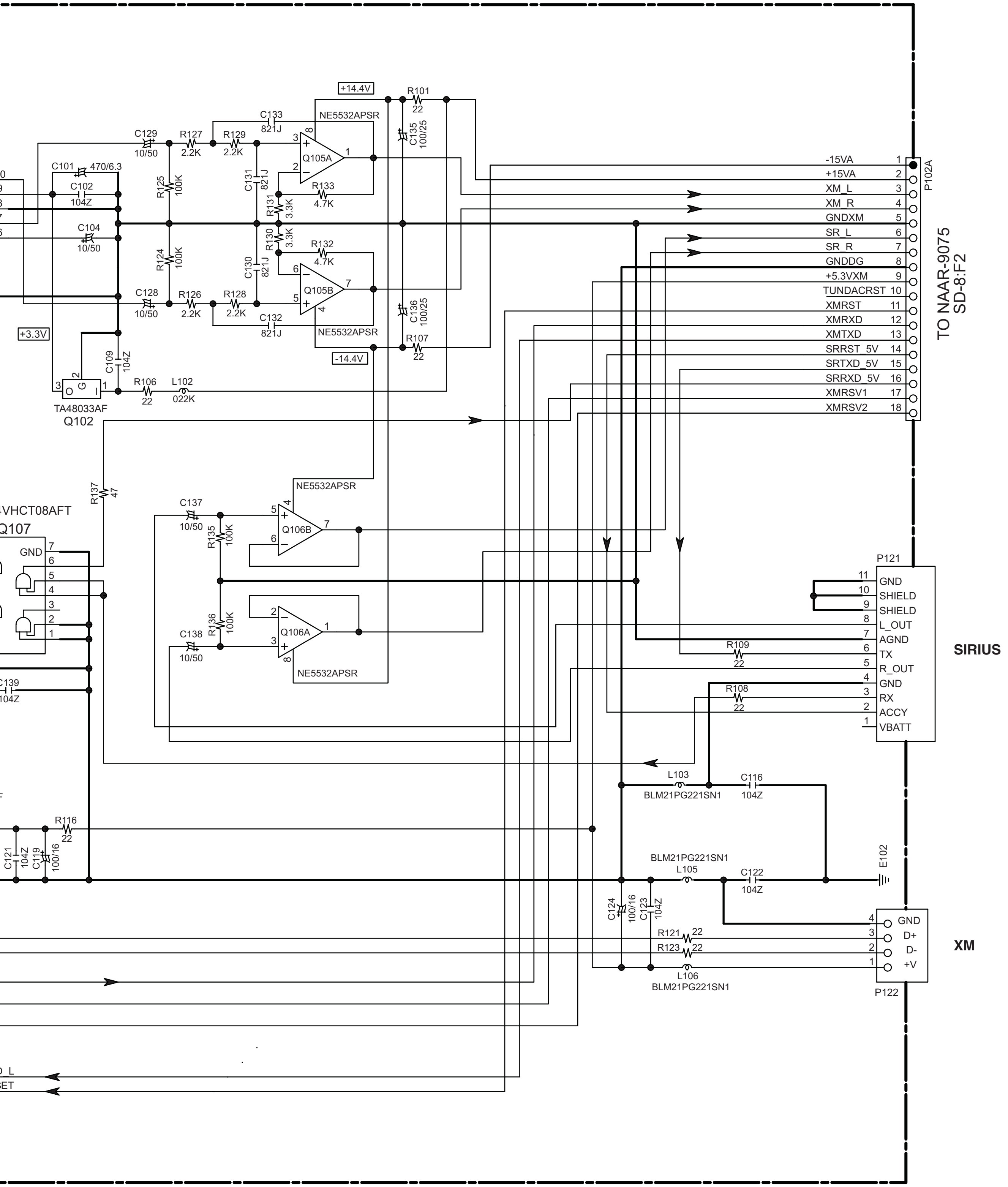
<Note>
SD-x:XY is short for Shcematic Diagram-x and
each socket's location, X=A to H, Y=1 to 5.

SCHEMATIC DIAGRAM-12 (SD-12)

XM/SIRIUS SECTION


A
B
C
D
1
2
3
4
5
NARF-9077
U30 XM PC BOARD
DAC
CS4344
Q101
SDIN
DEM/SCLK
LRCK
MCLK
VQ
AOUTR
VA
GND
AOUTL
FILT+
I2S_SDO
I2S_SCLK
I2S_LRCLK
I2S_OCLK
R102 330
R103 330
R104 330
R105 100
C105 10/50
C106 104Z
BK1608LM182
L101
C107 104Z
C108 104Z
+3.3V
Q103
BU9450KV-E2
or F2628E-01
XM
12:SLAVE_SEL
LSDP
VSS
SC_TX_OUT
VDD
SC_RX_IN
I2C_SCL
I2C_SDA
ANT_REV
RST
SAII_EN
SAII_DA
SAII_CLK
MUTE
I2S_OCLK
I2S_LRCLK
I2S_CLK
I2S_DA
HSDP_EN
DT4_MODE
HSDP_CLK
HSDP_DA
TEST
SC_RATE
OSC_IN
OSC_OUT
I2S_RATE
LINKACTIVE
COMM_TX_EN
COMM_RX_P
COMM_RX_M
COMM_TX_M
COMM_TX_P
XM_SDI_L
XM_SDO_L
XM_ERR_IRQ
XM_RESET
C110 104Z
R141 100K
R110 100K
R113 100K
R114 100K
C115 102K
R115 100K
R145 100K
C111 104Z
R142 10K
C112 080D
C113 104Z
R111 1M
X101 45.1584MHz
R112 680
C114 040C
R117 100K
C120 104Z
R118 1K
R119 1K
C125 104Z
R120 100
R122 100
C126 104Z
C127 104Z
+3.3V_XM
C117 100/16
L104 022K
C118 470/6.3
TA48033AF
Q104
O G I
C121
TC74VHC
Q10
VCC
C139 104Z

<Note>
SD-x:XY is short for Shcematic Diagram-x and
each socket's location, X=A to H, Y=1 to 5.


+14.4V
R101
22
C133
821J
NE5532APSR
C135
100/25
C129
10/50
R127
2.2K
R129
2.2K
Q105A
R133
4.7K
C131
821J
R131
3.3K
C101
470/6.3
C102
104Z
R125
100K
C104
10/50
R130
3.3K
R132
4.7K
R124
100K
C130
821J
Q105B
C136
100/25
C128
10/50
R126
2.2K
R128
2.2K
C132
821J
NE5532APSR
+3.3V
-14.4V
R107
22
C109
104Z
R106
22
L102
022K
TA48033AF
Q102
-15VA
+15VA
XM_L
XM_R
GNDXM
SR_L
SR_R
GNDDG
+5.3VXM
TUNDACRST
XMRST
XMRXD
XMTXD
SRRST_5V
SRTXD_5V
SRRXD_5V
XMRSV1
XMRSV2
P102A
TO NAAR-9075
SD-8:F2
NE5532APSR
R137
47
-VHCT08AFT
Q107
GND
C137
10/50
R135
100K
Q106B
Q106A
R136
100K
C138
10/50
NE5532APSR
C139
104Z
P121
GND
SHIELD
SHIELD
L_OUT
AGND
TX
R_OUT
GND
RX
ACCY
VBATT
SIRIUS
R109
22
R108
22
L103
BLM21PG221SN1
C116
104Z
R116
22
C121
104Z
C119
100/16
BLM21PG221SN1
L105
C122
104Z
E102
C124
100/16
C123
104Z
R121
22
R123
22
L106
BLM21PG221SN1
GND
D+
D-
+V
XM
P122
D_L
SET

SCHEMATIC DIAGRAM-13 (SD-13)

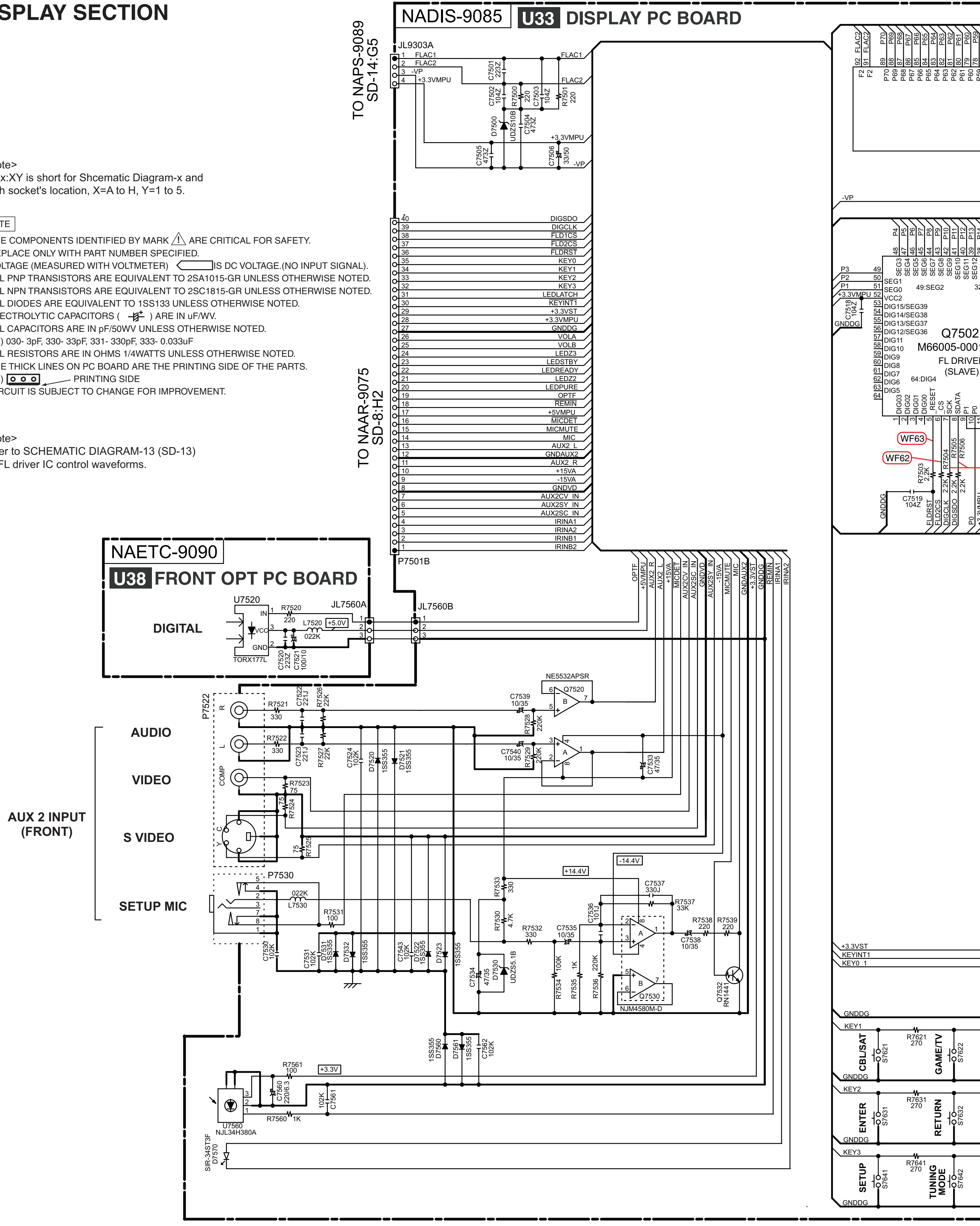
DISPLAY SECTION

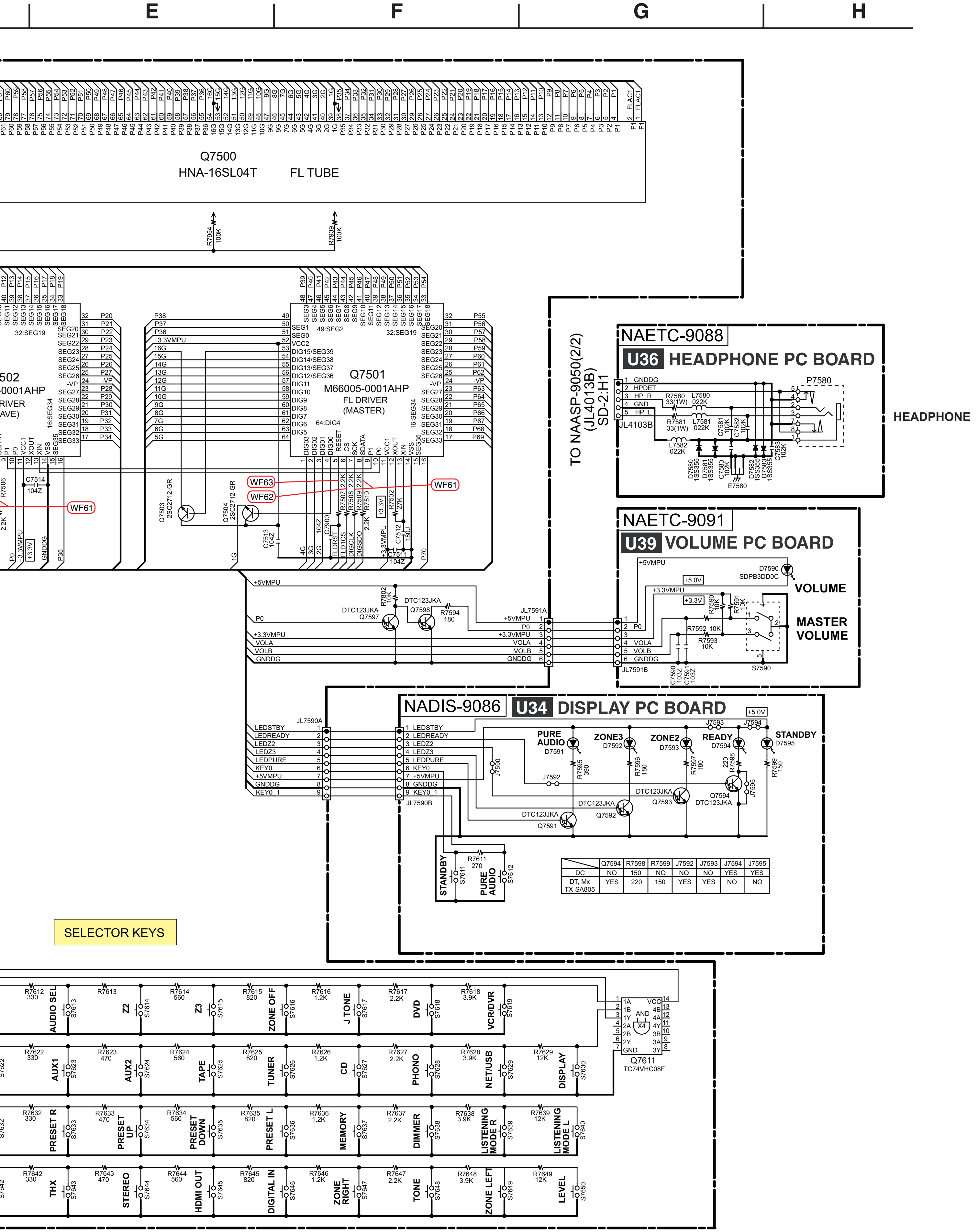
<Note>
SD-x:XY is short for Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.

NOTE

- THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER) ⊂ IS DC VOLTAGE.(NO INPUT SIGNAL).
- ALL PNP TRANSISTORS ARE EQUIVALENT TO 2SA1015-GR UNLESS OTHERWISE NOTED.
- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS (⊣⊢) ARE IN uF/WV.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED. EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033uF
- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS. EX) ○○○ PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

<Note>
Refer to SCHEMATIC DIAGRAM-13 (SD-13) for FL driver IC control waveforms.


NADIS-9085
U33 DISPLAY PC BOARD
TO NAPS-9089 SD-14:G5
JL9303A
FLAC1
FLAC2
-VP
+3.3VMPU
C7501 223Z
C7502 104Z
R7500 220
C7503 104Z
R7501 220
D7500 UDZS10B
C7504 473Z
C7505 473Z
C7506 33/50
TO NAAR-9075 SD-8:H2
P7501B
DIGSDO
DIGCLK
FLD1CS
FLD2CS
FLDRST
KEY0
KEY1
KEY2
KEY3
LEDLATCH
KEYINT1
+3.3VST
+3.3VMPU
GNDDG
VOLA
VOLB
LEDZ3
LEDSTBY
LEDREADY
LEDZ2
LEDPURE
OPTF
REMIN
+5VMPU
MICDET
MICMUTE
MIC
AUX2_L
GNDAUX2
AUX2_R
+15VA
-15VA
GNDVD
AUX2CV_IN
AUX2SY_IN
AUX2SC_IN
IRINA1
IRINA2
IRINB1
IRINB2
Q7502
M66005-0001
FL DRIVER (SLAVE)
49:SEG2
64:DIG4
WF63
WF62
R7503 2.2K
R7504 2.2K
R7505 2.2K
R7506 2.2K
C7518 104Z
C7519 104Z
NAETC-9090
U38 FRONT OPT PC BOARD
U7520
TORX177L
DIGITAL
R7520 220
L7520 022K
+5.0V
C7520 223Z
C7521 100/10
JL7560A
JL7560B
NE5532APSR
Q7520
C7539 10/35
C7540 10/35
R7528 220K
R7529 220K
C7533 47/35
P7522
R7521 330
R7522 330
C7522 221J
C7523 221J
R7526 22K
R7527 22K
C7524 102K
D7520 1SS355
D7521 1SS355
R7523 75
R7524 75
R7525 75
AUX 2 INPUT (FRONT)
AUDIO
VIDEO
S VIDEO
SETUP MIC
COMP
P7530
L7530 022K
R7531 100
C7530 102K
C7531 102K
D7531 1SS355
D7532 1SS355
C7543 102K
D7522 1SS355
D7523 1SS355
+14.4V
-14.4V
R7533 330
R7530 4.7K
R7532 330
C7535 10/35
C7536 101J
C7537 330J
R7537 33K
R7538 220
R7539 220
C7538 10/35
C7534 47/35
D7530 UDZS5.1B
R7534 100K
R7535 1K
R7536 220K
Q7530
NJM4580M-D
Q7532 RN1441
D7560 1SS355
D7561 1SS355
C7562 102K
R7561 100
+3.3V
C7560 220/6.3
C7561 102K
R7560 1K
U7560 NJL34H380A
D7570 SIR-34ST3F
+3.3VST
KEYINT1
KEY0_1
GNDDG
KEY1
KEY2
KEY3
CBL/SAT S7621
GAME/TV S7622
R7621 270
ENTER S7631
RETURN S7632
R7631 270
SETUP S7641
TUNING MODE S7642
R7641 270


E
F
G
H
Q7500
HNA-16SL04T
FL TUBE
R7954 100K
R7939 100K
Q7501
M66005-0001AHP
FL DRIVER
(MASTER)
502
-0001AHP
RIVER
AVE)
Q7503 2SC2712-GR
Q7504 2SC2712-GR
WF61
WF62
WF63
C7514 104Z
R7506
C7513 104Z
C7900 104Z
R7507 2.2K
R7508 2.2K
R7509 2.2K
R7510 2.2K
R7502 27K
C7512 180J
C7511 104Z
+3.3V
+3.3VMPU
GNDDG
TO NAASP-9050(2/2) (JL4013B) SD-2:H1
NAETC-9088
U36 HEADPHONE PC BOARD
HEADPHONE
JL4103B
P7580
R7580 33(1W)
L7580 022K
R7581 33(1W)
L7581 022K
L7582 022K
C7581 102K
C7582 102K
C7583 102K
D7580 1SS355
D7581 1SS355
D7582 1SS355
D7583 1SS355
C7580 102K
E7580
NAETC-9091
U39 VOLUME PC BOARD
+5VMPU
D7590 SDPB3DD0C
VOLUME
+5.0V
+3.3VMPU
+3.3V
R7590 10K
R7591 10K
MASTER VOLUME
R7592 10K
R7593 10K
JL7591B
C7590 103Z
C7591 103Z
S7590
JL7591A
R7802 10K
DTC123JKA Q7597
DTC123JKA Q7598
R7594 180
P0
VOLA
VOLB
NADIS-9086
U34 DISPLAY PC BOARD
JL7590A
JL7590B
LEDSTBY
LEDREADY
LEDZ2
LEDZ3
LEDPURE
KEY0
KEY0_1
PURE AUDIO D7591
ZONE3 D7592
ZONE2 D7593
READY D7594
STANDBY D7595
J7590
J7592
J7593
J7594
J7595
R7595 390
R7596 180
R7597 180
R7598 220
R7599 150
DTC123JKA Q7591
DTC123JKA Q7592
DTC123JKA Q7593
DTC123JKA Q7594
R7611 270
STANDBY S7611
PURE AUDIO S7612
SELECTOR KEYS
R7612 330
R7613
R7614 560
R7615 820
R7616 1.2K
R7617 2.2K
R7618 3.9K
AUDIO SEL S7613
Z2 S7614
Z3 S7615
ZONE OFF S7616
J TONE S7617
DVD S7618
VCR/DVR S7619
R7622 330
R7623 470
R7624 560
R7625 820
R7626 1.2K
R7627 2.2K
R7628 3.9K
R7629 12K
AUX1 S7623
AUX2 S7624
TAPE S7625
TUNER S7626
CD S7627
PHONO S7628
NET/USB S7629
DISPLAY S7630
R7632 330
R7633 470
R7634 560
R7635 820
R7636 1.2K
R7637 2.2K
R7638 3.9K
R7639 12K
PRESET R S7633
PRESET UP S7634
PRESET DOWN S7635
PRESET L S7636
MEMORY S7637
DIMMER S7638
LISTENING MODE R S7639
LISTENING MODE L S7640
R7642 330
R7643 470
R7644 560
R7645 820
R7646 1.2K
R7647 2.2K
R7648 3.9K
R7649 12K
THX S7643
STEREO S7644
HDMI OUT S7645
DIGITAL IN S7646
ZONE RIGHT S7647
TONE S7648
ZONE LEFT S7649
LEVEL S7650
Q7611
TC74VHC08F
AND X4

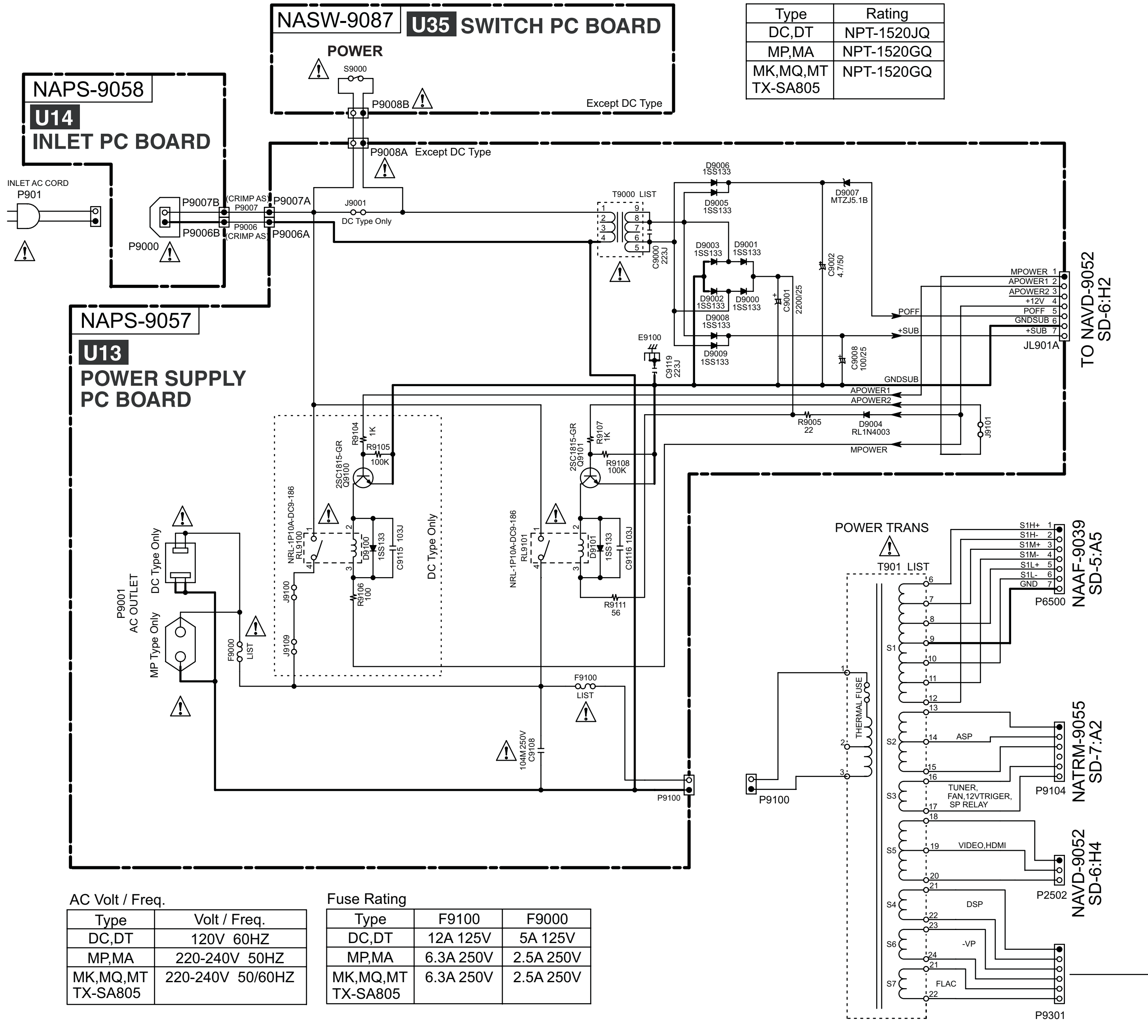
	Q7594	R7598	R7599	J7592	J7593	J7594	J7595
DC	NO	150	NO	NO	NO	YES	YES
DT, Mx TX-SA805	YES	220	150	YES	YES	NO	NO

SCHEMATIC DIAGRAM-14 (SD-14)

POWER SUPPLY SECTION-2

STBY Trans T9000

Type	Rating
DC,DT	NPT-1520JQ
MP,MA	NPT-1520GQ
MK,MQ,MT TX-SA805	NPT-1520GQ


NASW-9087
U35 SWITCH PC BOARD
POWER
S9000
P9008B
Except DC Type
P9008A Except DC Type
NAPS-9058
U14
INLET PC BOARD
INLET AC CORD
P901
P9007B
(CRIMP AS) P9007
P9007A
P9006B
P9006 (CRIMP AS)
P9006A
P9000
J9001
DC Type Only
T9000 LIST
C9000 223J
D9006 1SS133
D9005 1SS133
D9007 MTZJ5.1B
D9003 1SS133
D9001 1SS133
D9002 1SS133
D9000 1SS133
D9008 1SS133
D9009 1SS133
C9001 2200/25
C9002 4.7/50
C9008 100/25
E9100
C9119 223J
POFF
+SUB
GNDSUB
APOWER1
APOWER2
MPOWER
MPOWER 1
APOWER1 2
APOWER2 3
+12V 4
POFF 5
GNDSUB 6
+SUB 7
JL901A
TO NAVD-9052 SD-6:H2
R9005 22
D9004 RL1N4003
J9101
NAPS-9057
U13
POWER SUPPLY PC BOARD
R9104 1K
R9105 100K
2SC1815-GR Q9100
NRL-1P10A-DC9-186 RL9100
D9100 1SS133
C9115 103J
R9106 100
J9100
J9109
DC Type Only
R9107 1K
R9108 100K
2SC1815-GR Q9101
NRL-1P10A-DC9-186 RL9101
D9101 1SS133
C9116 103J
R9111 56
P9001 AC OUTLET
DC Type Only
MP Type Only
F9000 LIST
F9100 LIST
104M 250V C9108
P9100
P9100
POWER TRANS
T901 LIST
THERMAL FUSE
S1
S2
S3
S4
S5
S6
S7
ASP
TUNER, FAN,12VTRIGER, SP RELAY
VIDEO,HDMI
DSP
-VP
FLAC
S1H+ 1
S1H- 2
S1M+ 3
S1M- 4
S1L+ 5
S1L- 6
GND 7
P6500
NAAF-9039 SD-5:A5
P9104
NATRM-9055 SD-7:A2
P2502
NAVD-9052 SD-6:H4
P9301

AC Volt / Freq.

Type	Volt / Freq.
DC,DT	120V 60HZ
MP,MA	220-240V 50HZ
MK,MQ,MT TX-SA805	220-240V 50/60HZ

Fuse Rating

Type	F9100	F9000
DC,DT	12A 125V	5A 125V
MP,MA	6.3A 250V	2.5A 250V
MK,MQ,MT TX-SA805	6.3A 250V	2.5A 250V

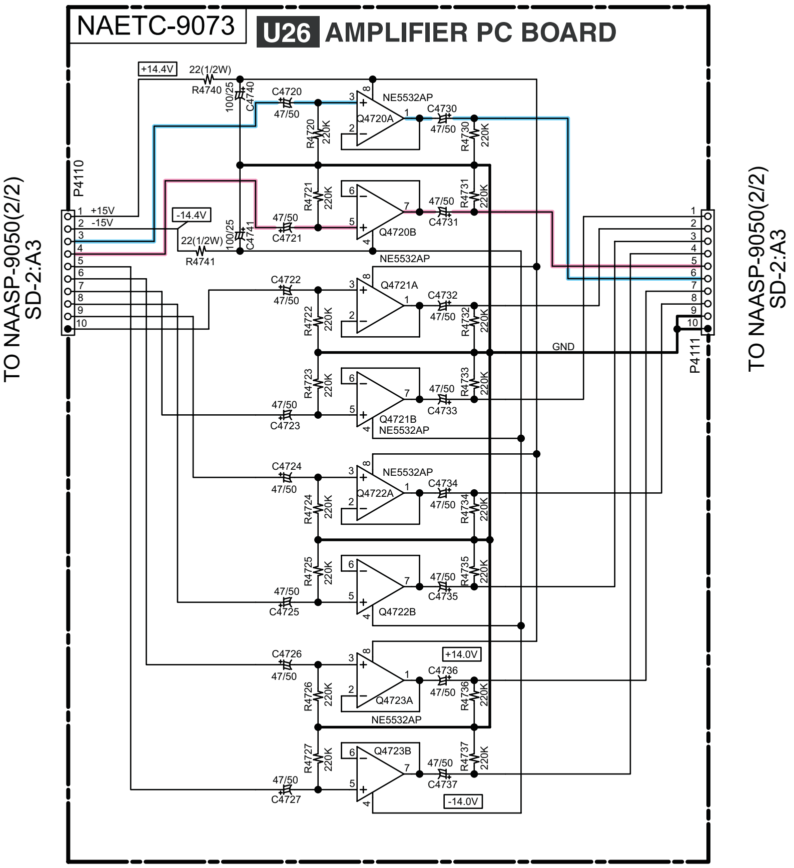
<Note>
SD-x:XY is short for Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.

Power Trans T901

Type	Rating
DC,DT	NPT-1553D
MP,MA	NPT-1553M
MK,MQ,MT TX-SA805	NPT-1553M

NOTE

- THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER) ⊂▭ IS DC VOLTAGE.(NO INPUT SIGNAL).
- ALL PNP TRANSISTORS ARE EQUIVALENT TO 2SA1015-GR UNLESS OTHERWISE NOTED.
- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS (⊣⁺⊢) ARE IN uF/WV.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
  EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033uF
- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.
  EX) [○ ○ ○] PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.


NAETC-9073
U26 AMPLIFIER PC BOARD
TO NAASP-9050(2/2) SD-2:A3
P4110
1 +15V
2 -15V
+14.4V
22(1/2W)
R4740
100/25
C4740
-14.4V
22(1/2W)
R4741
100/25
C4741
C4720
47/50
R4720
220K
NE5532AP
Q4720A
C4730
47/50
R4730
220K
R4721
220K
Q4720B
47/50
C4731
R4731
220K
47/50
C4721
NE5532AP
C4722
47/50
R4722
220K
Q4721A
C4732
47/50
R4732
220K
GND
R4723
220K
47/50
C4723
Q4721B
NE5532AP
47/50
C4733
R4733
220K
C4724
47/50
NE5532AP
Q4722A
C4734
47/50
R4724
220K
R4734
220K
R4725
220K
47/50
C4725
Q4722B
47/50
C4735
R4735
220K
C4726
47/50
+14.0V
C4736
47/50
R4726
220K
Q4723A
NE5532AP
R4736
220K
R4727
220K
Q4723B
47/50
C4737
R4737
220K
47/50
C4727
-14.0V
P4111
TO NAASP-9050(2/2) SD-2:A3

CAUTION

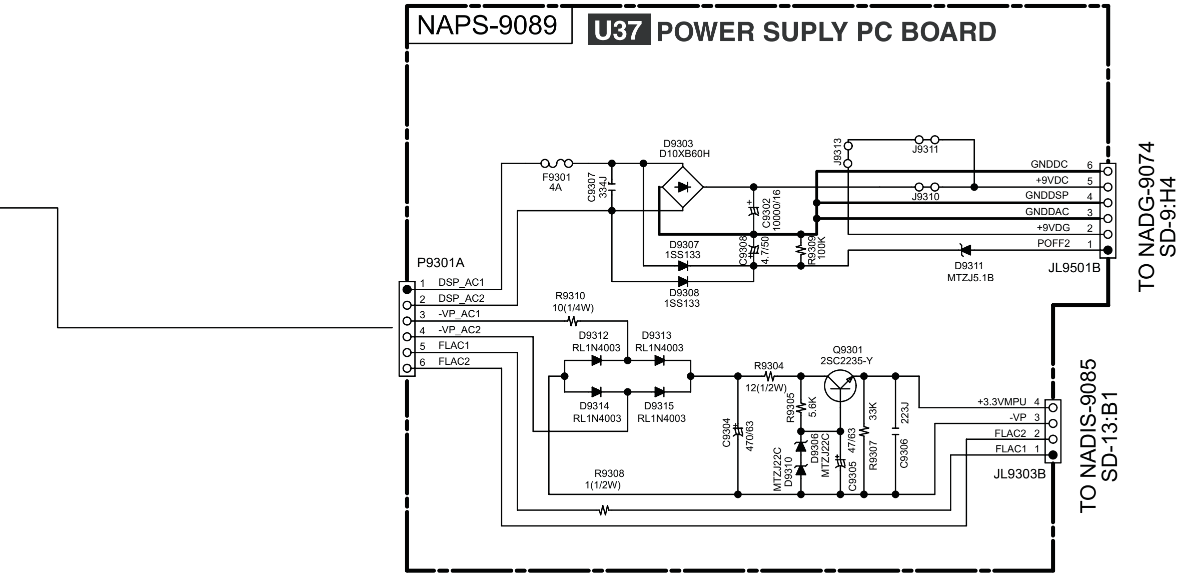
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH FUSE OF SAME TYPE AND RATING INDICATED.

ATTENTION

CAUTIONF AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET CALIBRATION COMME INDIQUE.

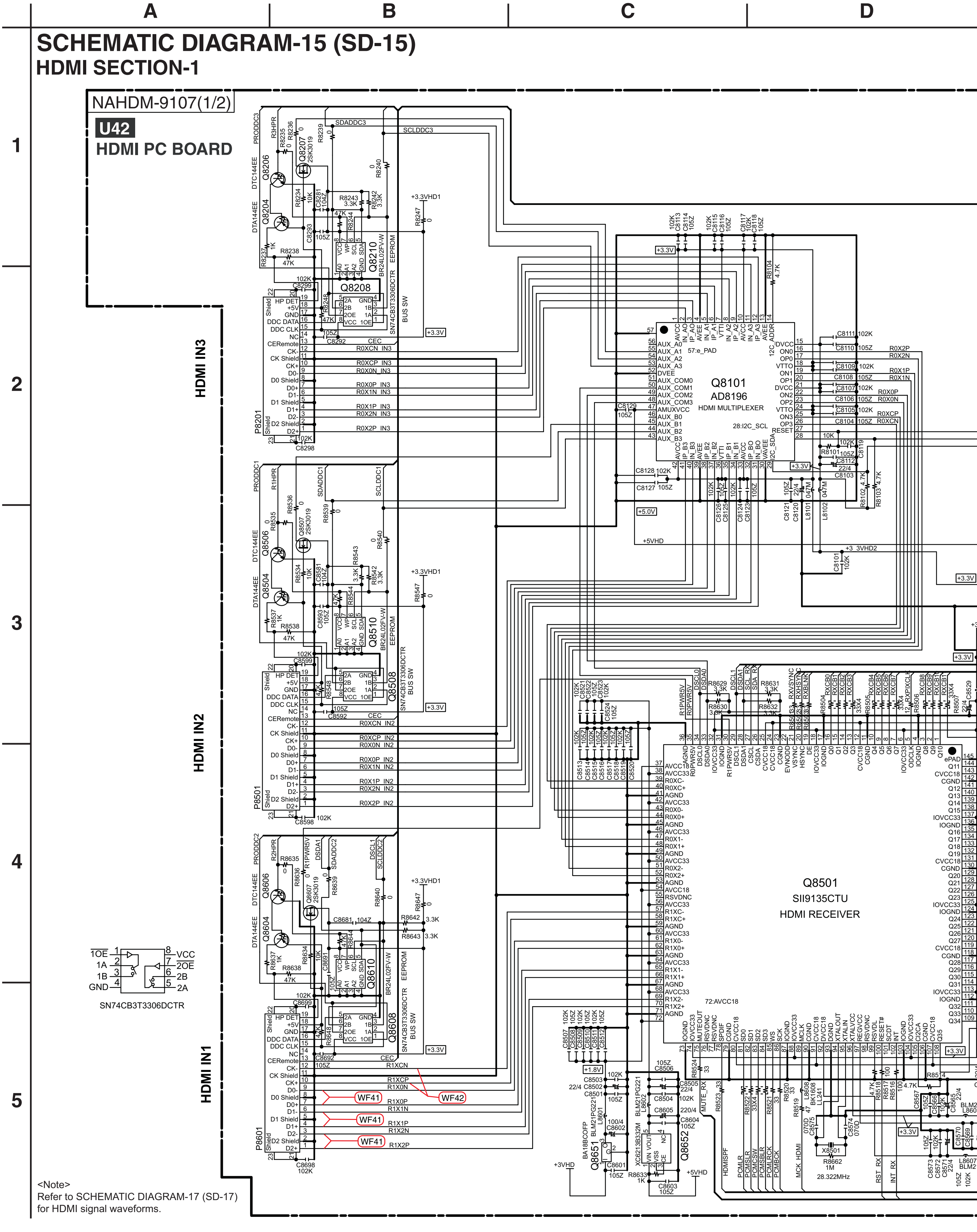
THIS SYMBOL LOCATED NEAR THE FUSE INDICATES THAT THE FUSE USED IS SLOW OPERATING TYPE FOR CONTINUED PROTECTION AGAINST FIRE FUSE HAZARD,REPLACE WITH SAME TYPE FUSE. FOR FUSE RATING REFER TO THE MAKING ADJACENT TO THE SYMBOL.

CE SYMBOLE INDIQUE QUE LE FUSIBLE UTLISE EST A LENT, E POUR UNE PROTECTION PERMANENTE,N'UTILISER QUE DES FUSIBLES DE MEME TYPE. CE DARNIER EST INDIQUE LA QU LE PRESENT SYMBOL EST APPOSE.

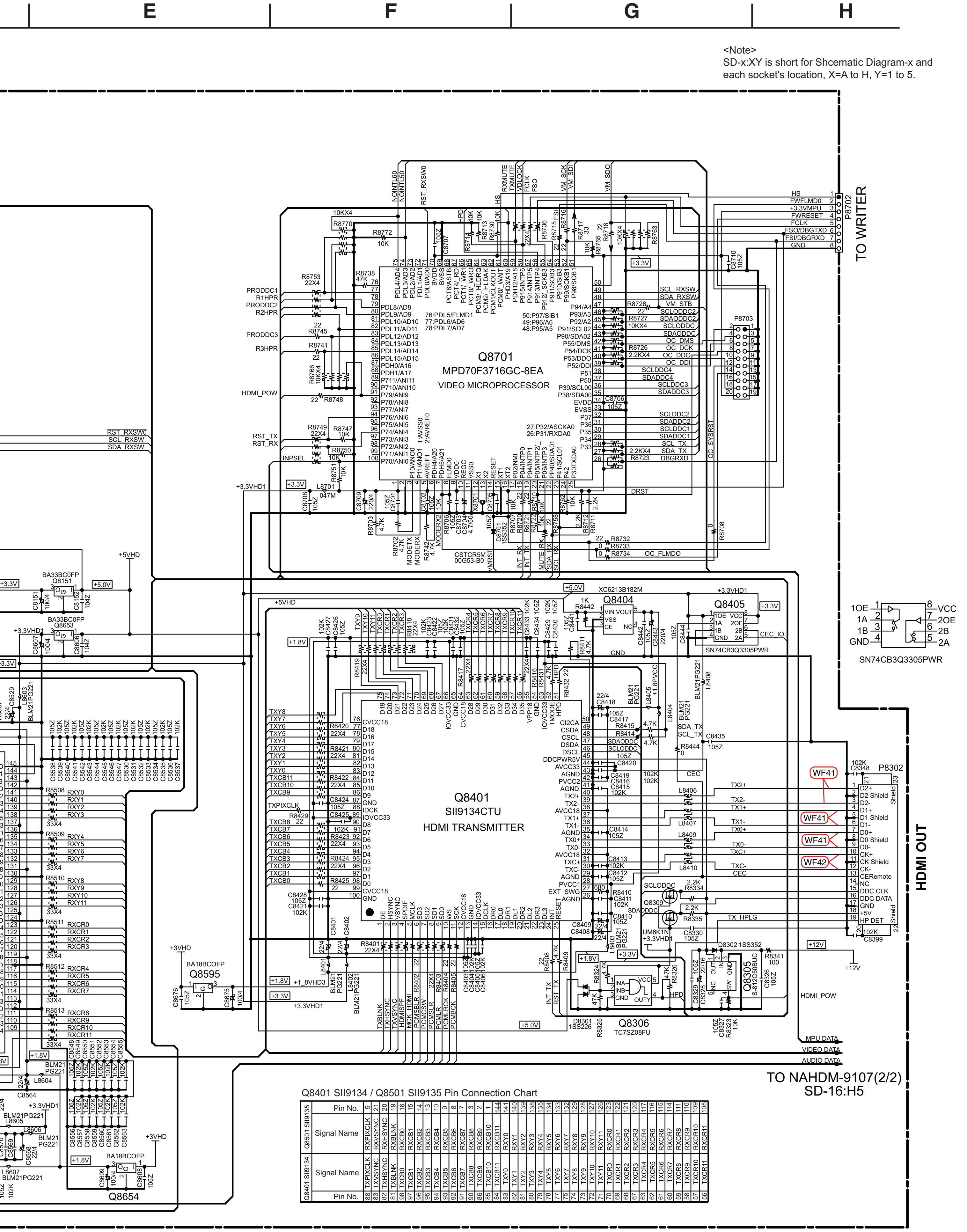

NAPS-9089
U37 POWER SUPLY PC BOARD
D9303
D10XB60H
J9313
J9311
F9301
4A
C9307
334J
C9302
10000/16
J9310
GNDDC 6
+9VDC 5
GNDDSP 4
GNDDAC 3
+9VDG 2
POFF2 1
D9307
1SS133
C9308
4.7/50
R9309
100K
D9311
MTZJ5.1B
JL9501B
TO NADG-9074 SD-9:H4
D9308
1SS133
P9301A
1 DSP_AC1
2 DSP_AC2
3 -VP_AC1
4 -VP_AC2
5 FLAC1
6 FLAC2
R9310
10(1/4W)
D9312
RL1N4003
D9313
RL1N4003
D9314
RL1N4003
D9315
RL1N4003
R9304
12(1/2W)
Q9301
2SC2235-Y
C9304
470/63
R9305
5.6K
D9306
MTZJ22C
D9310
MTZJ22C
C9305
47/63
R9307
33K
C9306
223J
+3.3VMPU 4
-VP 3
FLAC2 2
FLAC1 1
JL9303B
TO NADIS-9085 SD-13:B1
R9308
1(1/2W)

SCHEMATIC DIAGRAM-15 (SD-15)

HDMI SECTION-1


A
B
C
D
1
2
3
4
5
NAHDM-9107(1/2)
U42
HDMI PC BOARD
HDMI IN3
HDMI IN2
HDMI IN1
P8201
P8501
P8601
HP DET
+5V
GND
DDC DATA
DDC CLK
NC
CERemote
CK-
CK Shield
CK+
D0-
D0 Shield
D0+
D1-
D1 Shield
D1+
D2-
D2 Shield
D2+
Shield
Q8206 DTC144EE
Q8204 DTA144EE
Q8207 2SK3019
Q8210 BR24L02FV-W EEPROM
Q8208 SN74CB3T3306DCTR BUS SW
Q8506 DTC144EE
Q8504 DTA144EE
Q8507 2SK3019
Q8510 BR24L02FV-W EEPROM
Q8508 SN74CB3T3306DCTR BUS SW
Q8606 DTC144EE
Q8604 DTA144EE
Q8607 2SK3019
Q8610 BR24L02FV-W EEPROM
Q8608 SN74CB3T3306DCTR BUS SW
PRODDC3
PRODDC1
PRODDC2
SDADDC3
SCLDDC3
SDADDC1
SCLDDC1
SDADDC2
SCLDDC2
R3HPR
R1HPR
R2HPR
R1PWR5V
DSDA1
DSCL1
+3.3VHD1
+3.3V
+5.0V
+5VHD
+3 3VHD2
+1.8V
+3VHD
CEC
R0XCN IN3
R0XCP IN3
R0X0N IN3
R0X0P IN3
R0X1N IN3
R0X1P IN3
R0X2N IN3
R0X2P IN3
R0XCN IN2
R0XCP IN2
R0X0N IN2
R0X0P IN2
R0X1N IN2
R0X1P IN2
R0X2N IN2
R0X2P IN2
R1XCN
R1XCP
R1X0N
R1X0P
R1X1N
R1X1P
R1X2N
R1X2P
WF41
WF42
Q8101
AD8196
HDMI MULTIPLEXER
57:e_PAD
28:I2C_SCL
R0X2P
R0X2N
R0X1P
R0X1N
R0X0P
R0X0N
R0XCP
R0XCN
Q8501
SII9135CTU
HDMI RECEIVER
72:AVCC18
ePAD
Q8651 BA18BC0FP
Q8652 XC6213B332M
X8501
28.322MHz
HDMISPF
PCMLR
PCMSLR
PCMCSW
PCMSBLR
PCMLRCK
PCMBCK
MCK HDMI
RST RX
INT RX
MUTE_RX
1OE
1A
1B
GND
VCC
2OE
2B
2A
SN74CB3T3306DCTR

<Note>
Refer to SCHEMATIC DIAGRAM-17 (SD-17)
for HDMI signal waveforms.


E
F
G
H
Q8701
MPD70F3716GC-8EA
VIDEO MICROPROCESSOR
Q8401
SII9134CTU
HDMI TRANSMITTER
TO WRITER
P8702
HS
FWFLMD0
+3.3VMPU
FWRESET
FCLK
FSO/DBGTXD
FSI/DBGRXD
GND
P8703
Q8404
XC6213B182M
Q8405
SN74CB3Q3305PWR
1OE
1A
1B
GND
VCC
2OE
2B
2A
Q8151
BA33BC0FP
Q8653
BA33BC0FP
Q8595
BA18BCOFP
Q8654
BA18BCOFP
Q8306
TC7SZ08FU
Q8305
S-812C50BUC
Q8309
UM6K1N
D8301
1SS226
D8302 1SS352
X8701
CSTCR5M
00G53-B0
HDMI OUT
P8302
WF41
WF41
WF41
WF42
D2+
D2 Shield
D2-
D1+
D1 Shield
D1-
D0+
D0 Shield
D0-
CK+
CK Shield
CK-
CERemote
NC
DDC CLK
DDC DATA
GND
+5V
HP DET
Shield
HDMI_POW
MPU DATA
VIDEO DATA
AUDIO DATA
TO NAHDM-9107(2/2)
SD-16:H5
+3.3V
+5.0V
+1.8V
+3.3VHD1
+5VHD
+3VHD
+12V

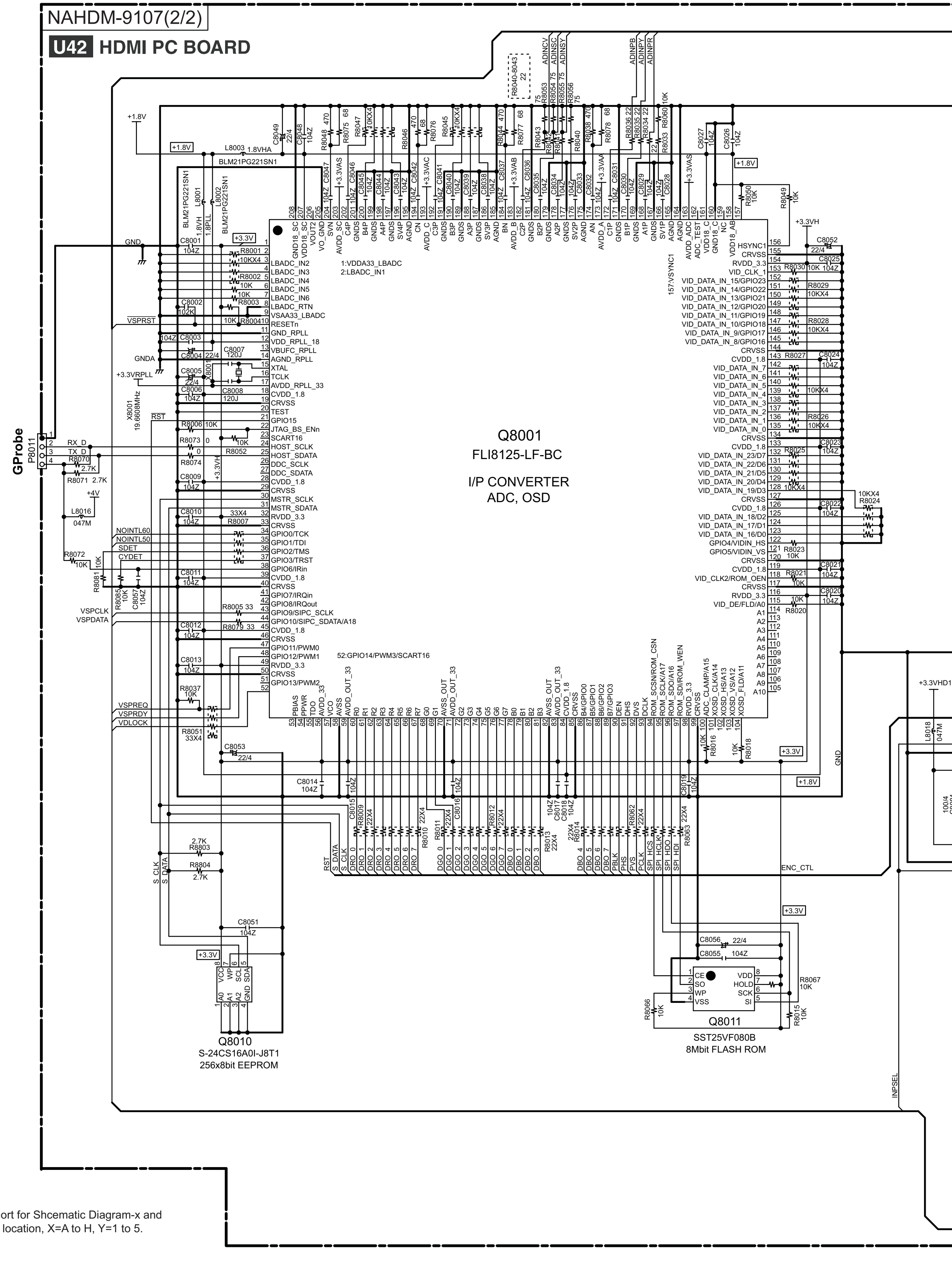
<Note>
SD-x:XY is short for Shcematic Diagram-x and
each socket's location, X=A to H, Y=1 to 5.

Q8401 SII9134 / Q8501 SII9135 Pin Connection Chart

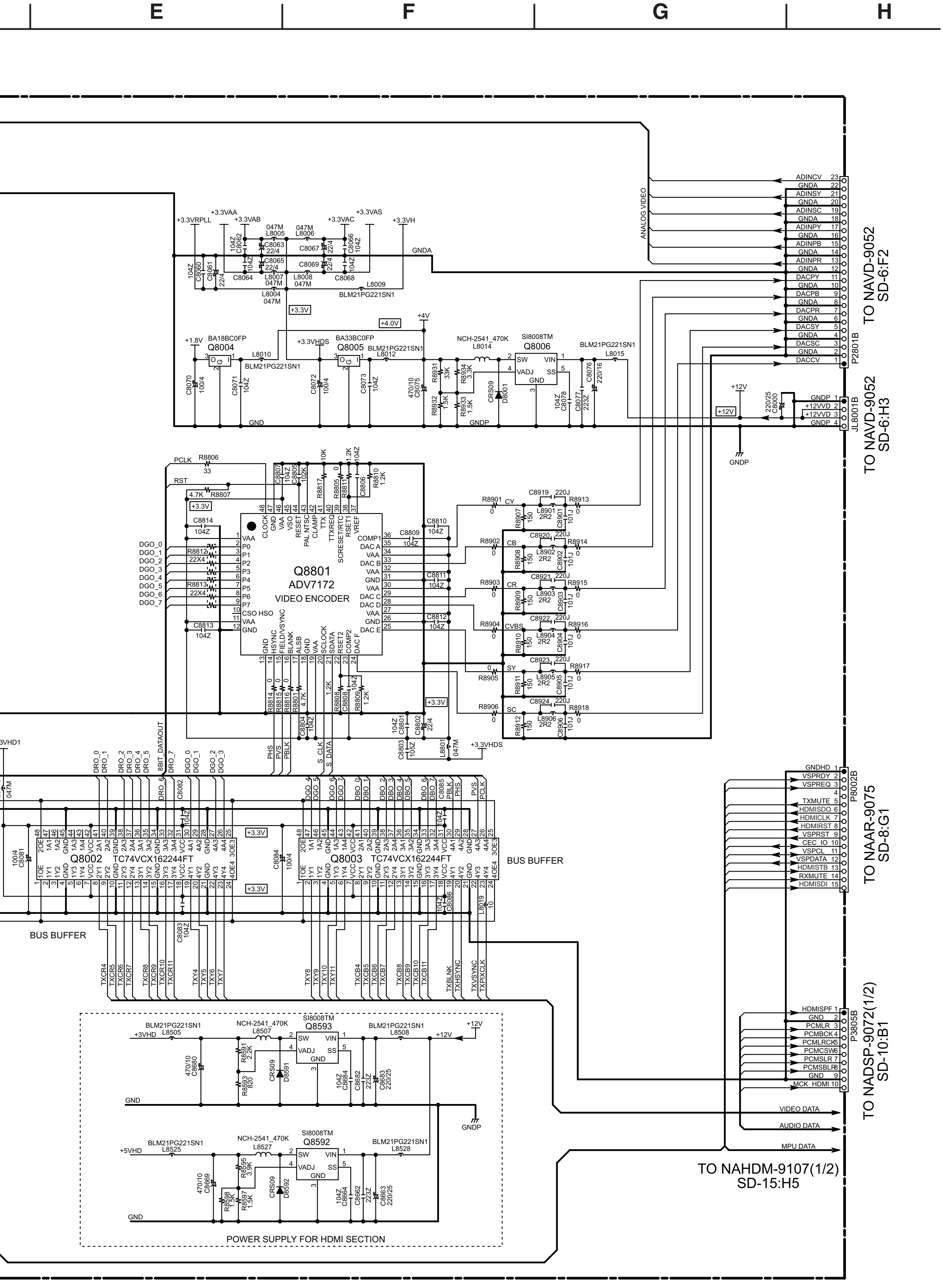
Q8501 SII9135 Pin No.	Q8501 SII9135 Signal Name	Q8401 SII9134 Signal Name	Q8401 SII9134 Pin No.
5	RXPIXCLK	TXPIXCLK	88
21	RXVSYNC	TXVSYNC	83
20	RXHSYNC	TXHSYNC	82
19	RXBLNK	TXBLNK	81
16	RXCB0	TXCB0	98
15	RXCB1	TXCB1	97
14	RXCB2	TXCB2	96
13	RXCB3	TXCB3	95
10	RXCB4	TXCB4	94
9	RXCB5	TXCB5	93
8	RXCB6	TXCB6	92
7	RXCB7	TXCB7	91
3	RXCB8	TXCB8	90
2	RXCB9	TXCB9	86
1	RXCB10	TXCB10	85
144	RXCB11	TXCB11	84
141	RXY0	TXY0	83
140	RXY1	TXY1	82
139	RXY2	TXY2	81
138	RXY3	TXY3	80
135	RXY4	TXY4	79
134	RXY5	TXY5	78
133	RXY6	TXY6	77
132	RXY7	TXY7	75
129	RXY8	TXY8	74
128	RXY9	TXY9	73
127	RXY10	TXY10	72
126	RXY11	TXY11	71
123	RXCR0	TXCR0	70
122	RXCR1	TXCR1	69
121	RXCR2	TXCR2	68
120	RXCR3	TXCR3	67
117	RXCR4	TXCR4	63
116	RXCR5	TXCR5	62
115	RXCR6	TXCR6	61
114	RXCR7	TXCR7	60
111	RXCR8	TXCR8	59
110	RXCR9	TXCR9	58
109	RXCR10	TXCR10	57
108	RXCR11	TXCR11	56

SCHEMATIC DIAGRAM-16 (SD-16)

HDMI SECTION-2


NAHDM-9107(2/2)
U42 HDMI PC BOARD
Q8001
FLI8125-LF-BC
I/P CONVERTER
ADC, OSD
GProbe
P8011
RX_D
TX_D
GND
GNDA
+3.3VRPLL
+1.8V
+3.3V
+3.3VH
+4V
L8016
047M
X8001
19.6608MHz
RST
VSPRST
NOINTL60
NOINTL50
SDET
CYDET
VSPCLK
VSPDATA
VSPREQ
VSPRDY
VDLOCK
S_CLK
S_DATA
ENC_CTL
INPSEL
ADINCV
ADINSC
ADINSY
ADINPB
ADINPY
ADINPR
1:VDDA33_LBADC
2:LBADC_IN1
157:VSYNC1
52:GPIO14/PWM3/SCART16
Q8010
S-24CS16A0I-J8T1
256x8bit EEPROM
Q8011
SST25VF080B
8Mbit FLASH ROM
+3.3VHD1
L8018
047M

<Note>
SD-x:XY is short for Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.


E
F
G
H
ANALOG VIDEO
ADINCV 23
GNDA 22
ADINSY 21
GNDA 20
ADINSC 19
GNDA 18
ADINPY 17
GNDA 16
ADINPB 15
GNDA 14
ADINPR 13
GNDA 12
DACPY 11
GNDA 10
DACPB 9
GNDA 8
DACPR 7
GNDA 6
DACSY 5
GNDA 4
DACSC 3
GNDA 2
DACCV 1
P2801B
TO NAVD-9052
SD-6:F2
GNDP 1
+12VVD 2
+12VVD 3
GNDP 4
JL8001B
TO NAVD-9052
SD-6:H3
+12V
220/25
C8000
GNDP
+3.3VRPLL
+3.3VAA
+3.3VAB
+3.3VAC
+3.3VAS
+3.3VH
GNDA
047M
L8005
L8006
C8062
C8063
C8066
C8067
C8060
C8061
C8064
C8065
C8068
C8069
L8007
L8008
L8004
L8009
BLM21PG221SN1
+3.3V
+4.0V
+4V
+1.8V
BA18BC0FP
Q8004
L8010
+3.3VHDS
BA33BC0FP
Q8005
L8012
NCH-2541_470K
L8014
SI8008TM
Q8006
SW
VIN
VADJ
SS
GND
L8015
C8070
C8071
C8072
C8073
C8075
R8931
R8932
R8933
R8934
CRS09
D8001
C8077
C8078
C8076
220/16
GND
GNDP
PCLK
R8806
33
RST
4.7K
R8807
C8814
104Z
C8813
DGO_0
DGO_1
DGO_2
DGO_3
DGO_4
DGO_5
DGO_6
DGO_7
R8812
22X4
R8813
C8807
C8805
R8817
R8805
R8811
C8806
R8810
Q8801
ADV7172
VIDEO ENCODER
CLOCK
VAA
VSO
RESET
PAL NTSC
CLAMP
TTX
TTXREQ
SCRESET/RTC
RSET1
VREF
COMP1
DAC A
DAC B
DAC C
DAC D
DAC E
DAC F
P0
P1
P2
P3
P4
P5
P6
P7
CSO HSO
HSYNC
FIELD/VSYNC
BLANK
ALSB
SCLOCK
SDATA
RSET2
COMP2
C8809
C8810
C8811
C8812
R8814
R8815
R8816
R8801
R8808
C8808
R8809
C8804
C8801
C8802
C8803
L8801
+3.3VHDS
R8901
CY
R8902
CB
R8903
CR
R8904
CVBS
R8905
SY
R8906
SC
R8907
R8908
R8909
R8910
R8911
R8912
L8901
L8902
L8903
L8904
L8905
L8906
2R2
C8901
C8902
C8903
C8904
C8905
C8906
101J
C8919
C8920
C8921
C8922
C8923
C8924
220J
R8913
R8914
R8915
R8916
R8917
R8918
3VHD1
047M
DRO_0
DRO_1
DRO_2
DRO_3
DRO_4
DRO_5
8BIT_DATAOUT
DRO_6
DRO_7
DGO_0
DGO_1
DGO_2
DGO_3
PHS
PVS
PBLK
S_CLK
S_DATA
C8082
C8081
Q8002
TC74VCX162244FT
C8084
Q8003
TC74VCX162244FT
BUS BUFFER
BUS BUFFER
C8083
C8085
C8086
L8019
DBO_0
DBO_1
DBO_2
DBO_3
DBO_4
DBO_5
DBO_6
DBO_7
TXCR4
TXCR5
TXCR6
TXCR7
TXCR8
TXCR9
TXCR10
TXCR11
TXY4
TXY5
TXY6
TXY7
TXY8
TXY9
TXY10
TXY11
TXCB4
TXCB5
TXCB6
TXCB7
TXCB8
TXCB9
TXCB10
TXCB11
TXBLNK
TXHSYNC
TXVSYNC
TXPIXCLK
GNDHD 1
VSPRDY 2
VSPREQ 3
4
TXMUTE 5
HDMISDO 6
HDMICLK 7
HDMIRST 8
VSPRST 9
CEC_IO 10
VSPCL 11
VSPDATA 12
HDMISTB 13
RXMUTE 14
HDMISDI 15
P8002B
TO NAAR-9075
SD-8:G1
HDMISPF 1
GND 2
PCMLR 3
PCMBCK 4
PCMLRCK 5
PCMCSW 6
PCMSLR 7
PCMSBLR 8
GND 9
MCK_HDMI 10
P3805B
TO NADSP-9072(1/2)
SD-10:B1
VIDEO DATA
AUDIO DATA
MPU DATA
TO NAHDM-9107(1/2)
SD-15:H5
BLM21PG221SN1
+3VHD
L8505
NCH-2541_470K
L8507
SI8008TM
Q8593
L8508
+12V
C8680
R8591
2.2K
R8593
820
CRS09
D8591
C8684
C8682
C8683
GND
GNDP
+5VHD
L8525
L8527
Q8592
L8528
C8669
R8598
R8595
3.9K
R8597
1.5K
D8592
C8664
C8662
C8663
220/25
POWER SUPPLY FOR HDMI SECTION

SCHEMATIC DIAGRAM-13(SD-17)
WAVEFORM SECTION

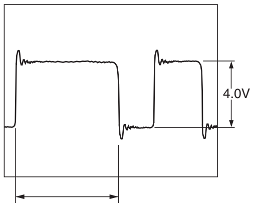
Digital Audio Waveform Part

NOTE:
1. (WF01) is short for (Waveform01)
2. Refer to SD-9(SCHEMATIC DIAGRAM-9) for the location of each waveform on circuit.
3. SD-x:XY is short for Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.

LR CLOCK (SAI_LRCK, CX_LRCK)
Fs=48kHz : DVD, Clock width=20.8us
Fs=44.1kHz : CD, Clock width=22.7us

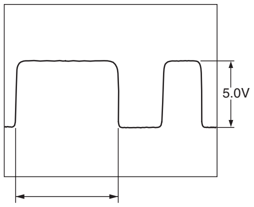
BIT CLOCK (SAI_SLCK, CX_SLCK)
64Fs=3072kHz : DVD, Clock width=325ns
64Fs=2822.4kHz : CD, Clock width=354ns

(WF01) OPT1 (SD-9:B2)



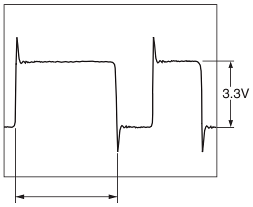
Duty varies according to audio data

(WF02) COAX1 (SD-9:C2)



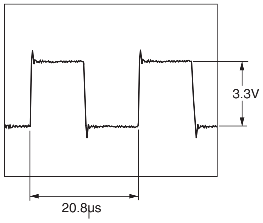
Duty always varies according to audio data

(WF03) SAI_SDOUT (SD-9:B4)

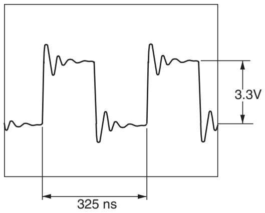


Duty varies according to audio data

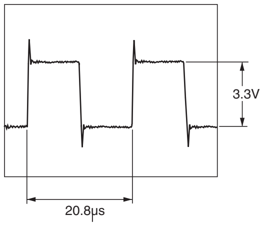
(WF04) SAI_LRCK (SD-9:B4)



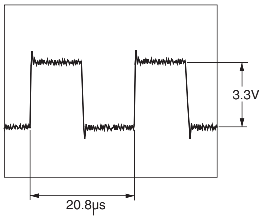
(WF05) SAI_SLCK (SD-9:C4)



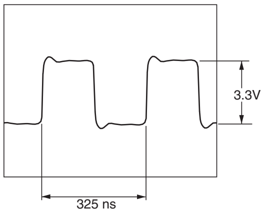
(WF06) CX_SDIN1 (SD-9:D4)



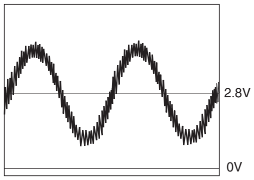
(WF07) CX_LRCK (SD-9:D4)



(WF08) CX_SCLK (SD-9:D4)

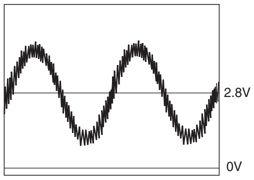


(WF09) DAC_OUT- (SD-9:E4)



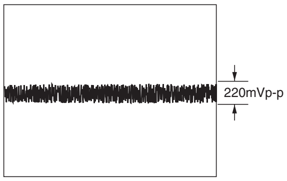
Analog audio waveform with aliasing noise

(WF10) AUDIO_FL (SD-9:F3)



Analog audio waveform with aliasing noise

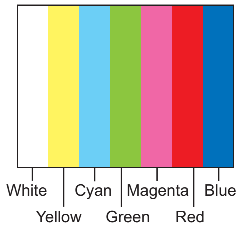
(WF10) AUDIO_FL (SD-9:F3)



Aliasing noise in no audio data

Video Waveform Part

Video source color and pattern

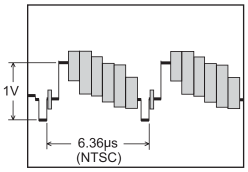


NOTE:

1. WF21 is short for Waveform21
2. Refer to SD-6(SCHEMATIC DIAGRAM-6) for the location of each waveform on circuit.
3. SD-x:XY is short for Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.
4. In the case that video outputs are not connected to video devices, video signal output levels are doubled.

Composite waveform

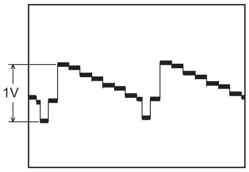
WF21 SD-6:B5



1.2 Vp-p (H)

S-Video Y waveform

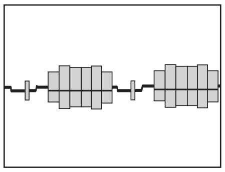
WF22 SD-6:B5



1.0 Vp-p

S-Video C waveform

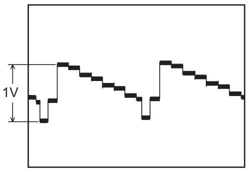
WF23 SD-6:B5



280 mVp-p

Component Y waveform

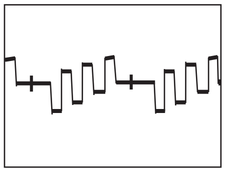
WF24 SD-6:B2,B3



1.0 Vp-p

Component PB waveform

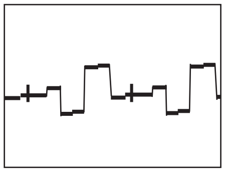
WF25 SD-6:B2,B3



720 mVp-p

Component PR waveform

WF26 SD-6:B2

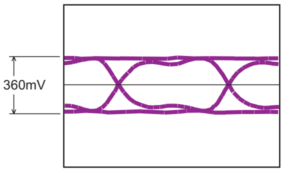


728 mVp-p

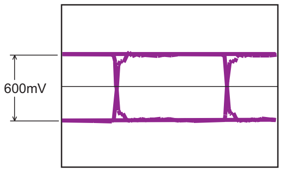
HDMI Waveform Part

HDMI D0,D1,D2 waveform

WF41 SD-15:B5, H4



2,227.5MHz
(1080p,12bit)

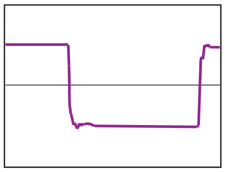


27MHz
(480i, 8bit)

D0,D1,D2 Eye-pattern waveform, frequency and level vary according to video resolution, aspect and profile. Waveforms above are examples.

HDMI CK waveform

WF42 SD-15:B5, H4



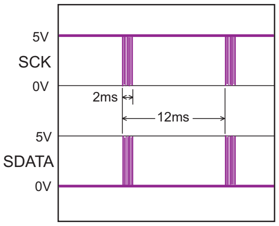
222,75MHz
(1080p,12bit)

CK waveform, frequency and level differ according to video resolution, aspect and profile.
D0,D1,D2 are just CK x10.

FL Driver IC Control Waveform Part

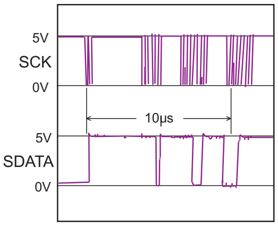
SCK/SDATA waveform

WF61 SD-13:D2, F2



SCK/SDATA waveform

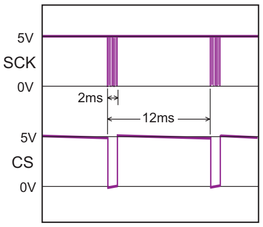
WF61 SD-13:D2, F2



SDATA waveform varies according to the data content

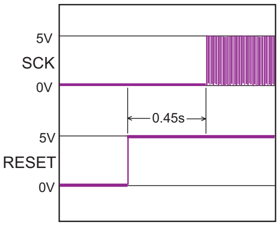
SCK/CS waveform

WF62 SD-13:D2, F2



SCK/RESET waveform

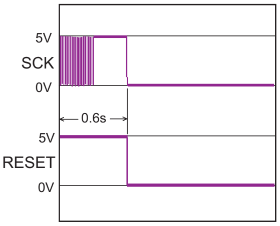
WF63 SD-13:D2, F2



When power on

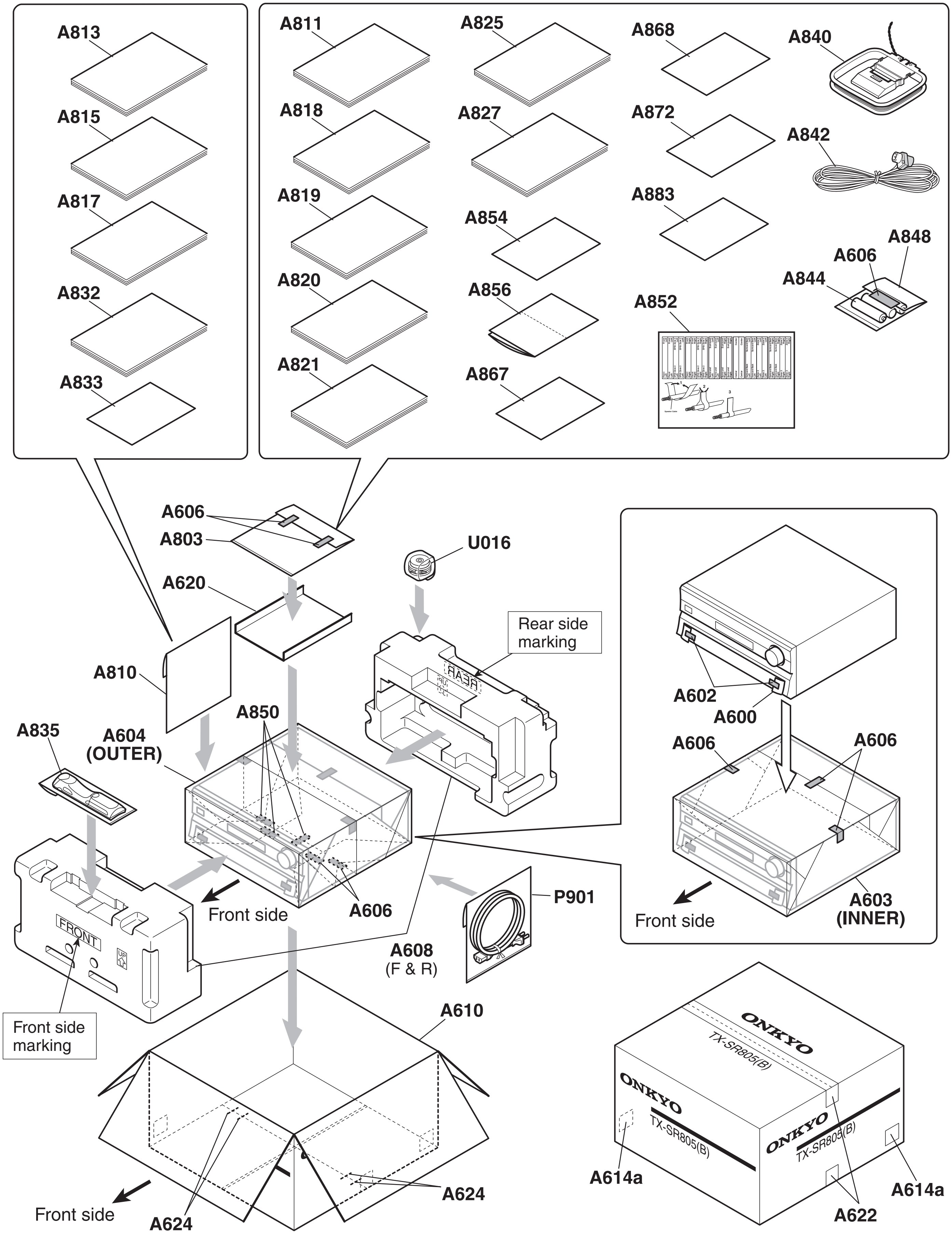
SCK/RESET waveform

WF63 SD-13:D2, F2



When power off

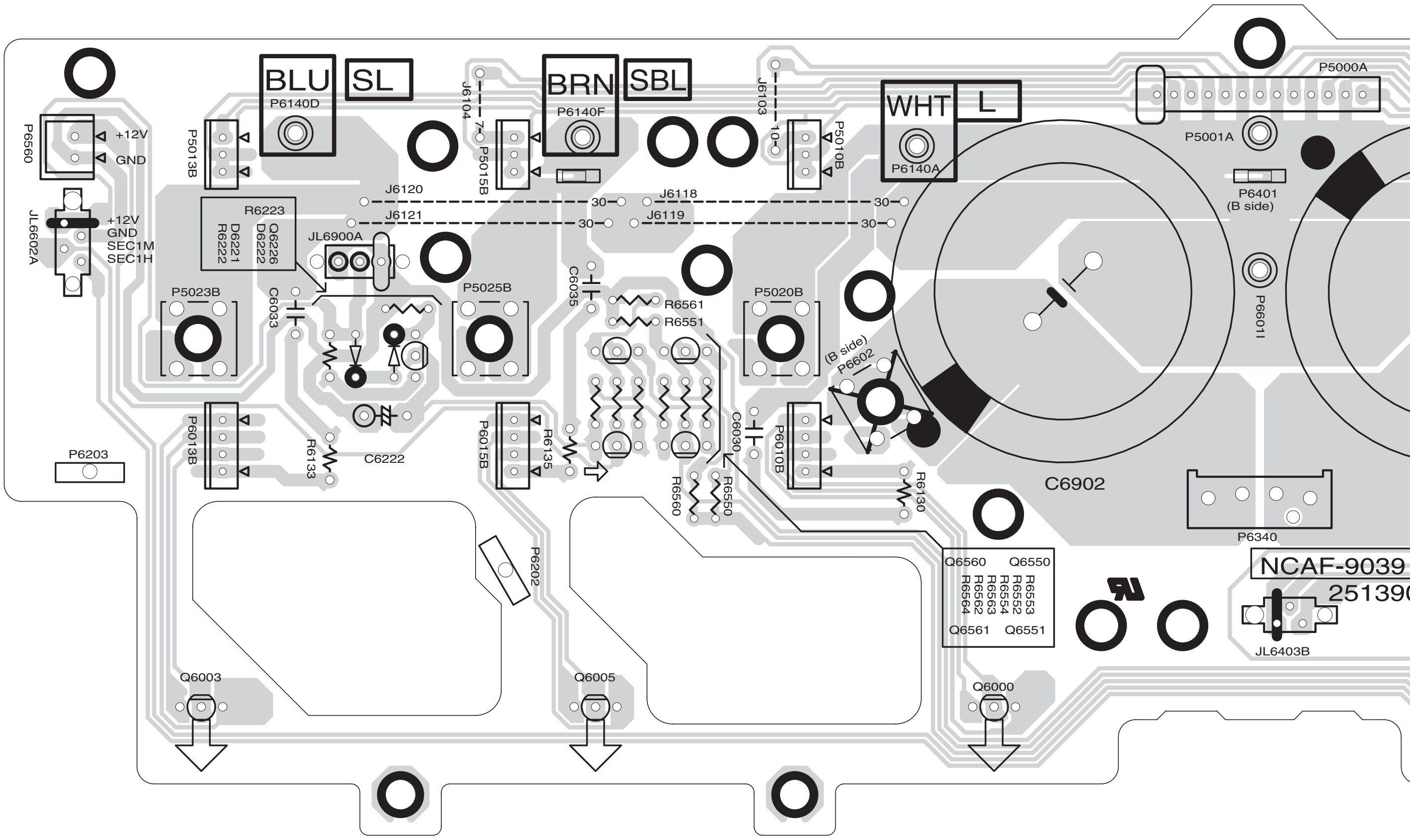
PACKING PROCEDURE

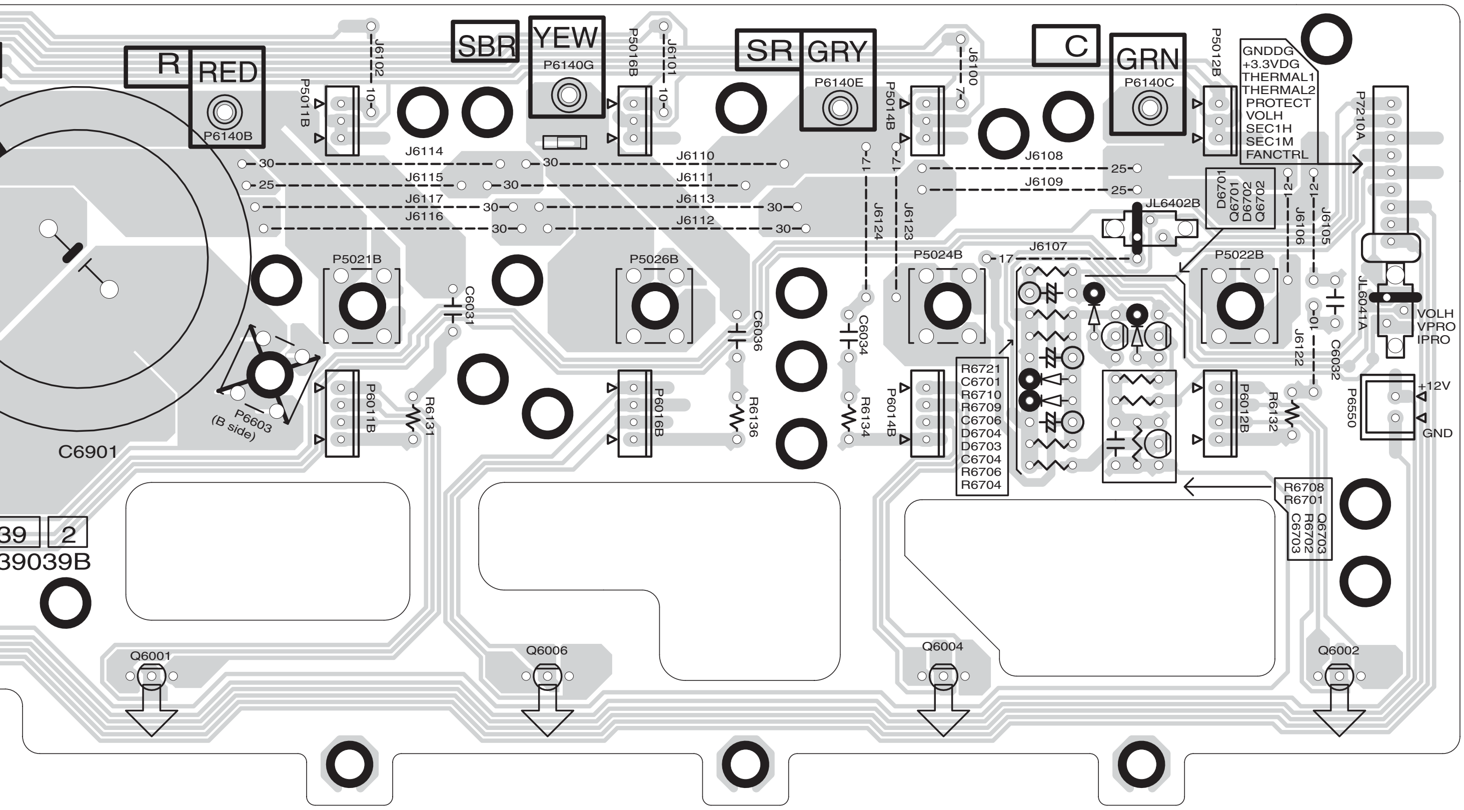

A813
A815
A817
A832
A833
A811
A818
A819
A820
A821
A825
A827
A854
A856
A867
A868
A872
A883
A852
A840
A842
A848
A606
A844
A606
A803
A620
A810
A850
A835
A604
(OUTER)
U016
Rear side
marking
REAR
UP
A606
Front side
A608
(F & R)
P901
FRONT
UP
Front side
marking
A602
A600
A606
A606
Front side
A603
(INNER)
A610
A624
A624
Front side
ONKYO
TX-SR805(B)
ONKYO
TX-SR805(B)
ONKYO
TX-SR805(B)
A614a
A614a
A622

PRINTED CIRCUIT BOARD VIEWS-1

U01 AMPLIFIER PC BOARD (NAAF-9039)

Component side

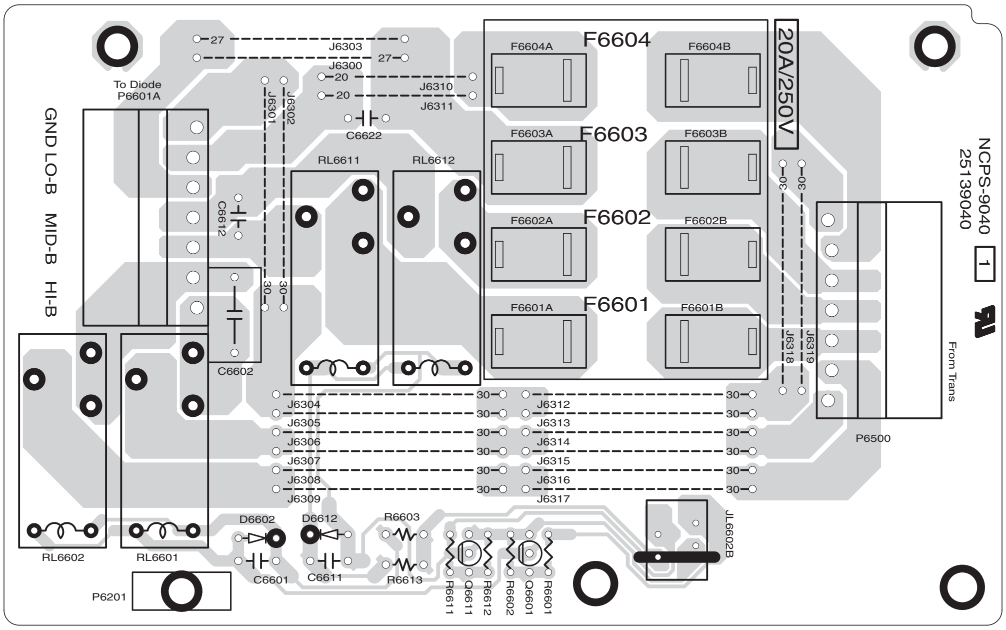

P6560
+12V
GND
JL6602A
+12V
GND
SEC1M
SEC1H
P5013B
BLU
SL
P6140D
J6104
P5015B
BRN
SBL
P6140F
J6103
P5010B
WHT
L
P6140A
P5000A
P5001A
P6401
(B side)
P6601
J6120
J6121
J6118
J6119
30
R6223
Q6226
D6222
D6221
R6222
JL6900A
P5023B
C6033
P5025B
C6035
R6561
R6551
P5020B
(B side)
P6602
C6902
P6203
P6013B
R6133
C6222
P6015B
R6135
C6030
P6010B
R6560
R6550
R6130
P6340
NCAF-9039
25139
P6202
Q6560
Q6550
R6564
R6562
R6563
R6554
R6552
R6553
Q6561
Q6551
JL6403B
Q6003
Q6005
Q6000


R
RED
P6140B
SBR
YEW
P6140G
SR
GRY
P6140E
C
GRN
P6140C
J6102
J6101
J6100
P5011B
P5016B
P5014B
P5012B
GNDDG
+3.3VDG
THERMAL1
THERMAL2
PROTECT
VOLH
SEC1H
SEC1M
FANCTRL
P7210A
J6114
J6110
J6115
J6111
J6117
J6113
J6116
J6112
J6108
J6109
J6124
J6123
J6107
J6106
J6105
JL6402B
D6701
Q6701
D6702
Q6702
P5021B
P5026B
P5024B
P5022B
C6031
C6036
C6034
C6032
JL6041A
VOLH
VPRO
IPRO
P6603
(B side)
C6901
P6011B
R6131
P6016B
R6136
R6134
P6014B
R6721
C6701
R6710
R6709
C6706
D6704
D6703
C6704
R6706
R6704
P6012B
R6132
J6122
P6550
+12V
GND
R6708
R6701
Q6703
R6702
C6703
39
2
39039B
Q6001
Q6006
Q6004
Q6002

PRINTED CIRCUIT BOARD VIEWS-2

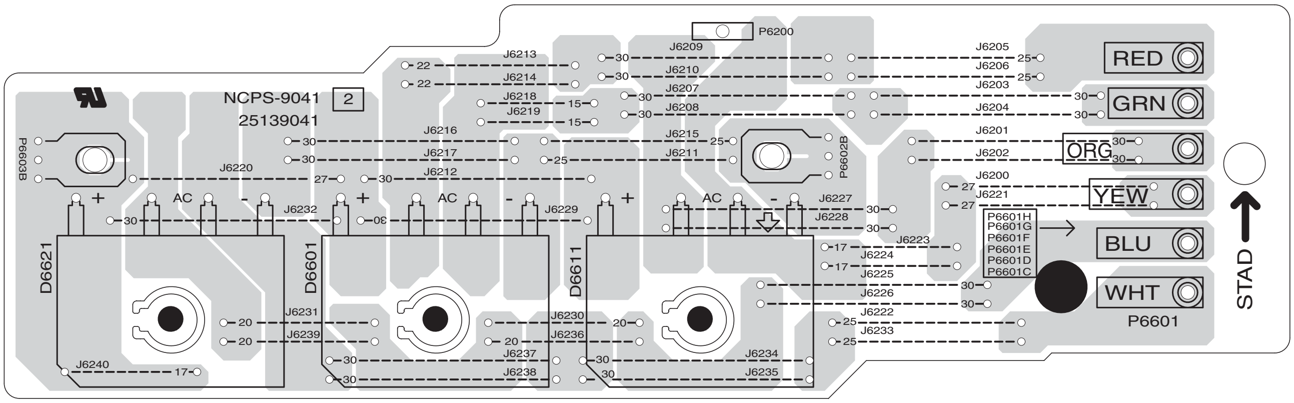
U02 POWER SUPPLY PC BOARD (NAPS-9040)

Component side


J6303
J6300
J6310
J6311
J6301
J6302
To Diode
P6601A
C6622
GND LO-B MID-B HI-B
C6612
RL6611
RL6612
C6602
F6604
F6604A
F6604B
F6603
F6603A
F6603B
F6602
F6602A
F6602B
F6601
F6601A
F6601B
20A/250V
NCPS-9040
25139040
1
J6318
J6319
From Trans
P6500
J6304
J6305
J6306
J6307
J6308
J6309
J6312
J6313
J6314
J6315
J6316
J6317
D6602
D6612
R6603
R6613
C6601
C6611
R6611
Q6611
R6612
R6602
Q6601
R6601
JL6602B
RL6602
RL6601
P6201

U03 POWER SUPPLY PC BOARD (NAPS-9041)

Component side

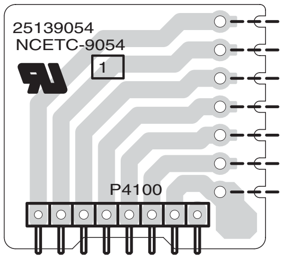

NCPS-9041
2
25139041
P6603B
P6200
J6213
J6214
J6218
J6219
J6216
J6217
J6212
J6220
J6232
J6229
J6209
J6210
J6207
J6208
J6215
J6211
P6602B
J6227
J6228
J6205
J6206
J6203
J6204
J6201
J6202
J6200
J6221
J6223
J6224
J6225
J6226
J6222
J6233
P6601H
P6601G
P6601F
P6601E
P6601D
P6601C
RED
GRN
ORG
YEW
BLU
WHT
P6601
STAD
D6621
D6601
D6611
AC
J6231
J6239
J6240
J6230
J6236
J6237
J6238
J6234
J6235

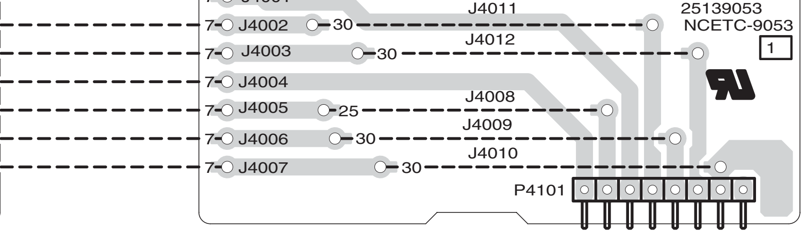
U10 CONNECTOR PC BOARD (NAETC-9054)

Component side

U09 CONNECTOR PC BOARD (NAETC-9053)

Component side


25139054
NCETC-9054
1
P4100


J4001
J4002
J4003
J4004
J4005
J4006
J4007
J4011
J4012
J4008
J4009
J4010
25139053
NCETC-9053
1
P4101

A B C D

PRINTED CIRCUIT BOARD VIEWS-3

U06 AMPLIFIER PC BOARD (NAASP-9050)

Side-A

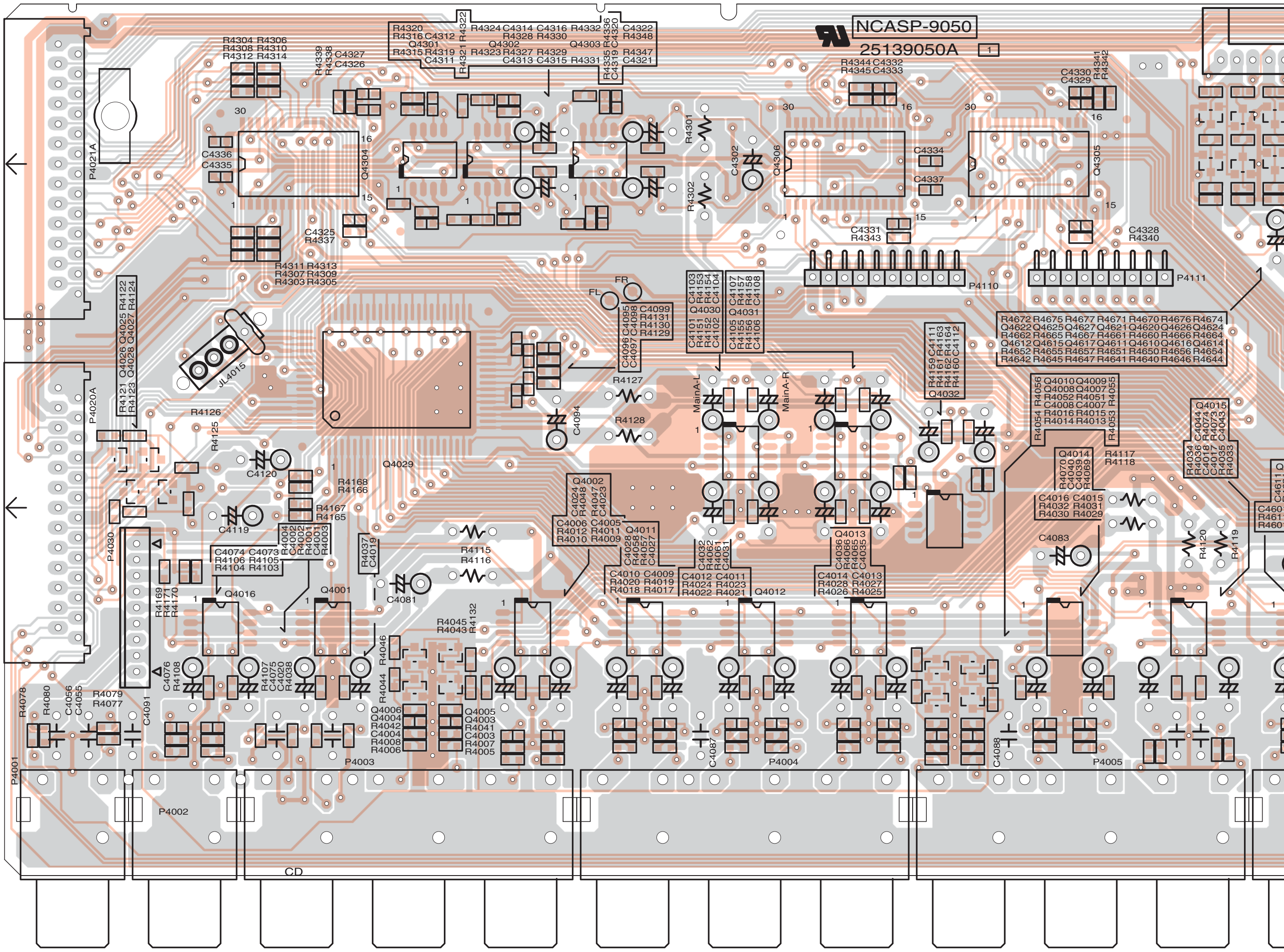
1

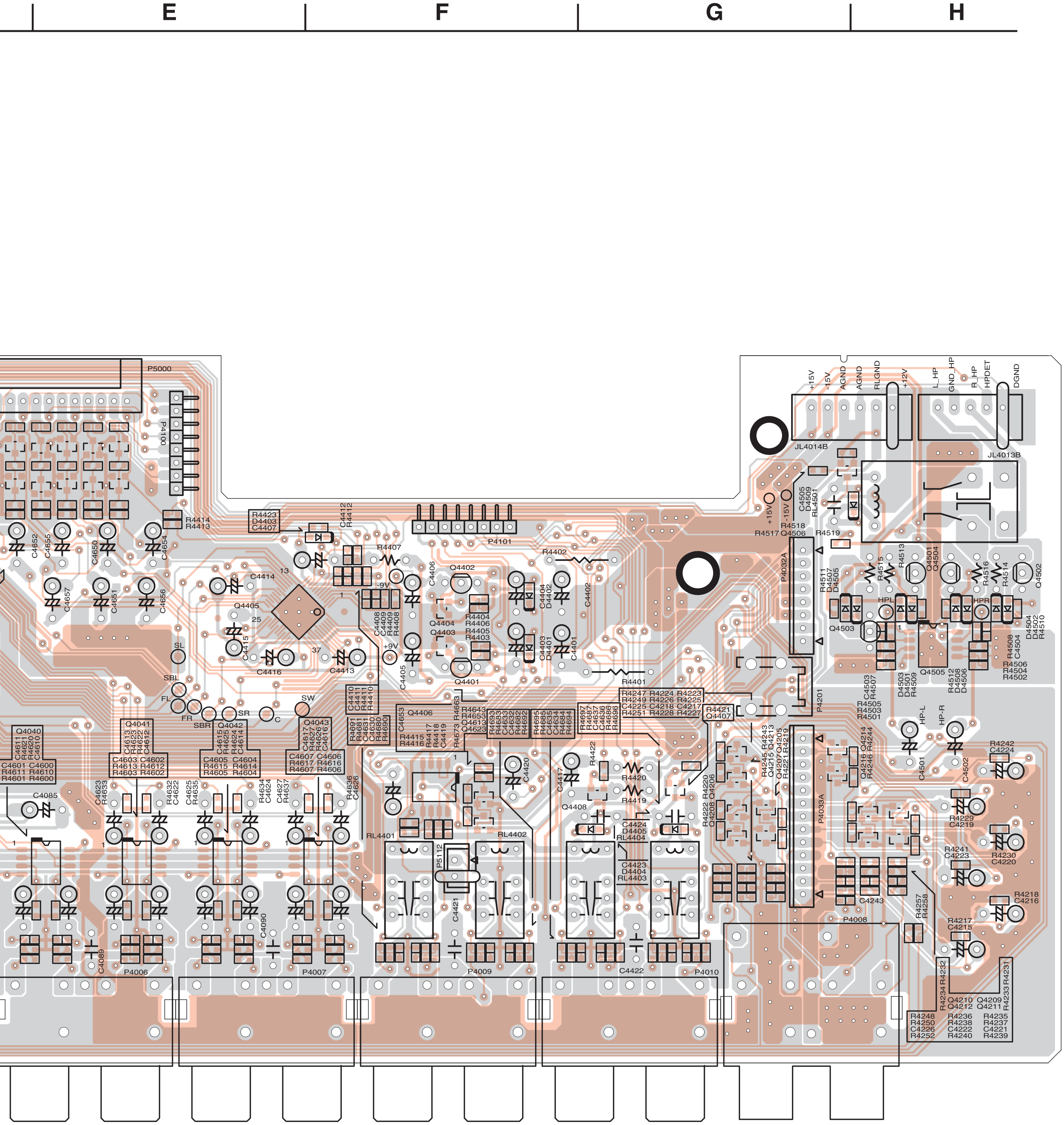
2

3

4

5


NCASP-9050
25139050A
P4021A
P4020A
P4030
JL4015
R4304 R4306
R4308 R4310
R4312 R4314
R4339
R4338
C4327
C4326
R4320
R4316 C4312
Q4301
R4315 R4319
C4311
R4321 R4322
R4324 C4314 C4316 R4332
R4328 R4330
Q4302
R4323 R4327 R4329
C4313 C4315 R4331
Q4303
R4335 R4336
C4319 C4320
C4322
R4348
R4347
C4321
R4344 C4332
R4345 C4333
C4330
C4329
R4341
R4342
C4336
C4335
Q4304
R4301
R4302
C4302
Q4306
C4334
C4337
Q4305
C4325
R4337
R4311 R4313
R4307 R4309
R4303 R4305
C4331
R4343
C4328
R4340
P4110
P4111
FR
FL
C4096 C4095
C4097 C4098
C4099
R4131
R4130
R4129
C4101 C4103
R4151 R4153
R4152 R4154
C4102 C4104
Q4030
C4105 C4107
R4155 R4157
R4156 R4158
C4106 C4108
Q4031
R4159 C4111
R4161 R4163
R4162 R4164
R4160 C4112
Q4032
R4672 R4675 R4677 R4671 R4670 R4676 R4674
Q4622 Q4625 Q4627 Q4621 Q4620 Q4626 Q4624
R4662 R4665 R4667 R4661 R4660 R4666 R4664
Q4612 Q4615 Q4617 Q4611 Q4610 Q4616 Q4614
R4652 R4655 R4657 R4651 R4650 R4656 R4654
R4642 R4645 R4647 R4641 R4640 R4646 R4644
R4121 R4122
R4123 R4124
Q4025 Q4026
Q4027 Q4028
R4126
R4125
R4127
R4128
C4094
MainA-L
MainA-R
C4120
C4119
Q4029
R4168
R4166
R4167
R4165
Q4002
C4024
R4048
R4047
C4023
C4006 C4005
R4012 R4011
R4010 R4009
Q4011
C4028
R4058
R4057
C4027
C4010 C4009
R4020 R4019
R4018 R4017
C4032
R4062
R4061
C4031
C4012 C4011
R4024 R4023
R4022 R4021
Q4012
Q4013
C4036
R4066
R4065
C4035
C4014 C4013
R4028 R4027
R4026 R4025
R4054 R4056
Q4010 Q4009
Q4008 Q4007
R4052 R4051
C4008 C4007
R4016 R4015
R4014 R4013
R4053 R4055
Q4014
R4070
C4039
R4069
R4117
R4118
C4016 C4015
R4032 R4031
R4030 R4029
C4083
R4120
R4119
R4034
R4036
C4018
C4017
R4035
R4033
C4044
R4074
R4073
C4043
Q4015
C4074 C4073
R4106 R4105
R4104 R4103
R4004
C4002
R4002
R4001
C4001
R4003
R4037
C4019
R4115
R4116
C4081
Q4016
Q4001
R4169
R4171
R4170
R4045
R4043
R4132
R4046
R4044
C4076
R4108
R4107
C4075
C4020
R4038
R4078
R4080
C4056
C4055
R4079
R4077
C4091
Q4006
Q4004
R4042
C4004
R4008
R4006
Q4005
Q4003
R4041
C4003
R4007
R4005
C4087
C4088
P4001
P4002
P4003
P4004
P4005
CD
30
16
15
1


E
F
G
H
P5000
P4100
R4414
R4413
R4423
D4403
C4407
C4412
R4412
P4101
R4407
R4402
C4414
Q4405
C4415
C4416
C4413
C4406
Q4402
Q4404
Q4403
R4404
R4406
R4405
R4403
C4408
C4409
R4409
R4408
-9V
+9V
C4405
Q4401
C4404
D4402
C4403
D4401
C4402
C4401
R4401
SL
SBL
FL
FR
SBR
SR
C
SW
Q4040
Q4041
Q4042
Q4043
C4085
C4652
C4655
C4650
C4654
C4657
C4651
C4656
C4601 C4600
R4611 R4610
R4601 R4600
C4603 C4602
R4613 R4612
R4603 R4602
C4605 C4604
R4615 R4614
R4605 R4604
C4607 C4606
R4617 R4616
R4607 R4606
C4623
R4633
R4632
C4622
C4625
R4635
R4634
C4624
C4627
R4637
R4636
C4626
C4089
C4090
P4006
P4007
C4410
C4411
R4411
R4410
Q4406
C4653
R4415 R4417
R4416 R4418
C4419
R4663
R4643
R4653
Q4613
Q4623
R4673
R4697
R4687
C4637
C4636
R4686
R4696
R4247 R4224 R4223
R4249 R4226 R4225
C4225 C4218 C4217
R4251 R4228 R4227
R4421
Q4407
C4420
C4417
R4422
R4420
R4419
Q4408
C4424
D4405
RL4404
C4423
D4404
RL4403
RL4401
RL4402
P5112
C4421
C4422
P4009
P4010
P4201
P4032A
P4033A
R4222 R4220
Q4208 Q4206
R4245 R4243
Q4215 Q4213
Q4207 Q4205
R4221 R4219
+15V
-15V
AGND
AGND
RLGND
+12V
L_HP
GND_HP
R_HP
HPDET
DGND
JL4014B
JL4013B
C4505
D4509
RL4501
R4518
R4517 Q4506
R4519
R4511
D4507
D4505
R4515
R4513
Q4501
Q4504
R4516
R4514
Q4502
HPL
HPR
Q4503
Q4505
C4503
R4507
R4505
R4503
R4501
D4503
D4501
R4509
R4512
D4508
D4506
R4508
C4504
R4506
R4504
R4502
D4504
D4502
R4510
HP-L
HP-R
C4501
C4502
Q4216 Q4214
R4246 R4244
R4242
C4224
R4229
C4219
R4241
C4223
R4230
C4220
R4218
C4216
C4243
R4257
R4258
R4217
C4215
P4008
R4234 R4232
Q4210 Q4209
Q4212 Q4211
R4233 R4231
R4248
R4250
C4226
R4252
R4236
R4238
C4222
R4240
R4235
R4237
C4221
R4239
)

A B C D

PRINTED CIRCUIT BOARD VIEWS-4

U08 VIDEO PC BOARD (NAVD-9052)

Side-A

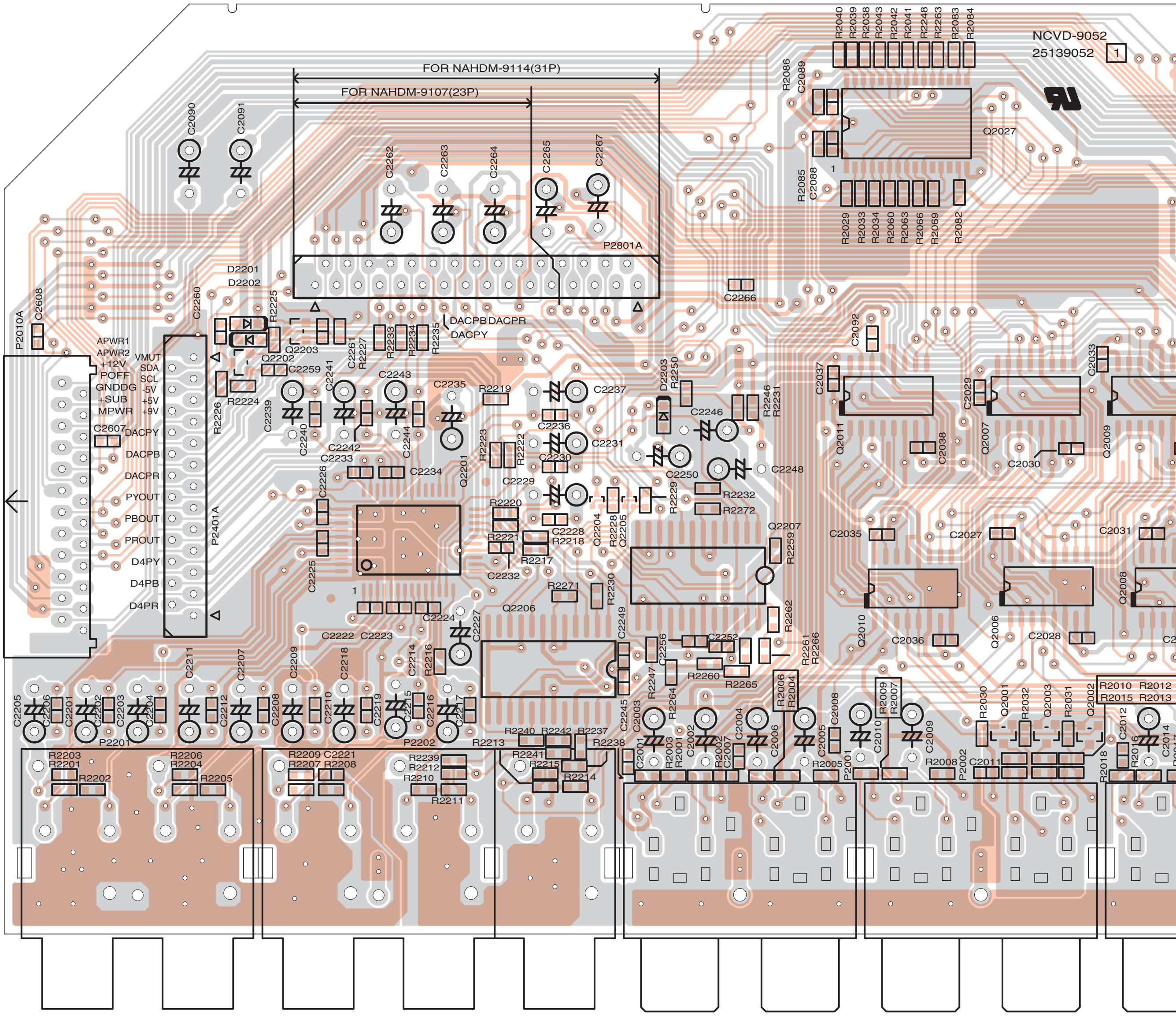
1

2

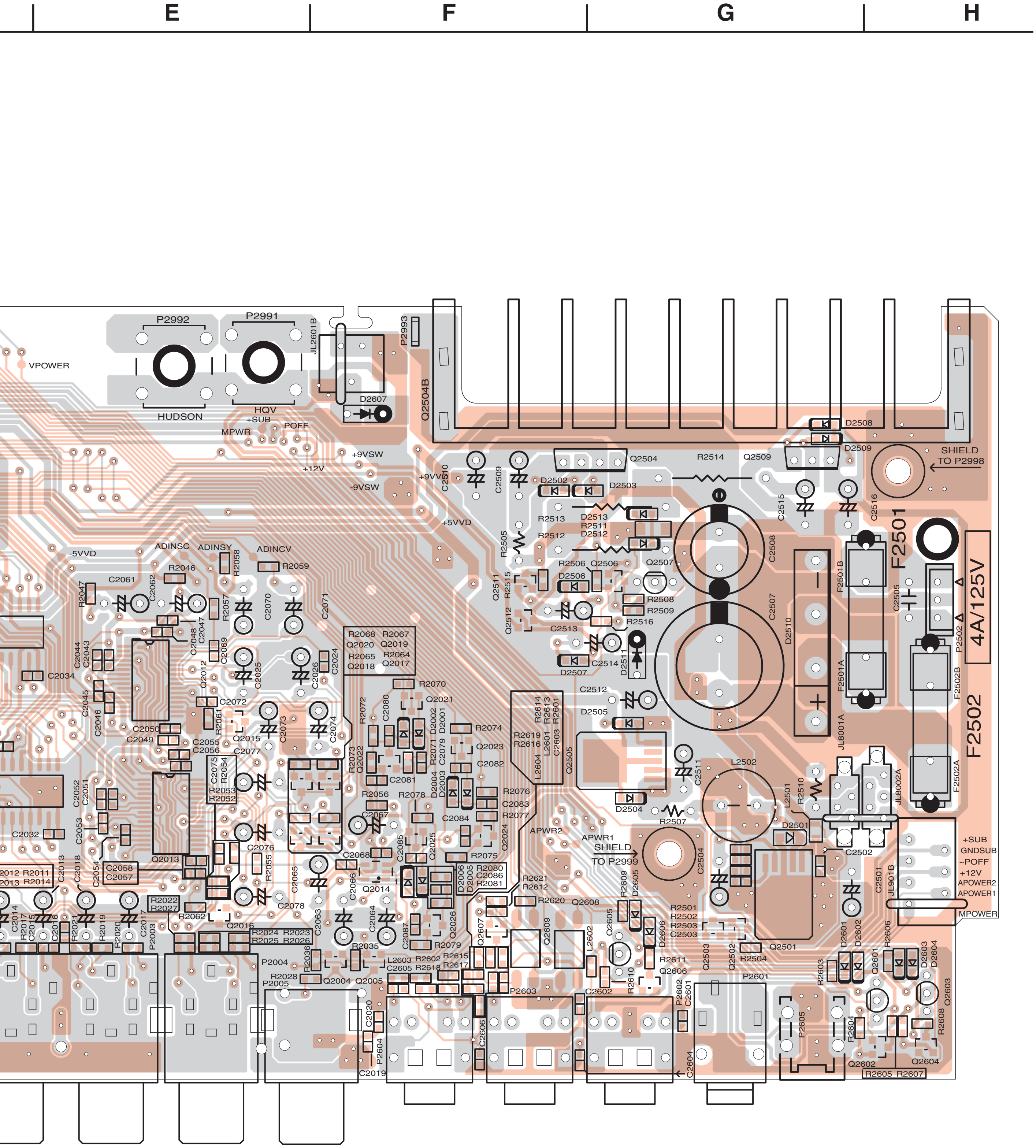
3

4

5



NCVD-9052
25139052
1
FOR NAHDM-9114(31P)
FOR NAHDM-9107(23P)
P2801A
P2401A
P2010A
APWR1
APWR2
+12V
POFF
GNDDG
+SUB
MPWR
VMUT
SDA
SCL
-5V
+5V
+9V
DACPY
DACPB
DACPR
PYOUT
PBOUT
PROUT
D4PY
D4PB
D4PR
DACPB DACPR
DACPY
C2090
C2091
C2262
C2263
C2264
C2265
C2267
C2608
C2260
C2607
D2201
D2202
R2225
Q2202
Q2203
C2259
C2261
R2227
R2233
R2234
R2235
C2241
C2243
C2235
R2219
C2237
D2203
R2250
C2246
R2246
R2231
R2226
R2224
C2239
C2240
C2242
C2233
C2244
C2234
C2236
C2231
C2230
C2229
R2223
R2222
Q2201
C2250
C2248
R2229
R2232
R2272
R2220
R2221
C2228
R2218
R2217
C2232
Q2204
R2228
Q2205
Q2207
R2259
C2226
C2225
R2271
R2230
Q2206
C2224
C2227
C2222
C2223
C2249
C2256
C2252
R2260
R2265
R2262
R2261
R2266
R2247
R2264
C2245
R2240
R2242
R2237
R2213
R2238
C2211
C2207
C2209
C2218
C2214
R2216
C2205
C2206
C2201
C2202
C2203
C2204
C2212
C2208
C2210
C2219
C2215
C2216
C2217
P2201
P2202
R2203
R2201
R2202
R2206
R2204
R2205
R2209
R2207
C2221
R2208
R2239
R2212
R2210
R2211
R2241
R2215
R2214
C2266
R2040
R2039
R2038
R2043
R2042
R2041
R2248
R2263
R2083
R2084
R2086
C2089
R2085
C2088
Q2027
R2029
R2033
R2034
R2060
R2063
R2066
R2069
R2082
C2092
C2037
C2033
C2029
Q2011
C2038
Q2007
C2030
Q2009
C2035
C2027
C2031
Q2010
C2036
Q2006
C2028
Q2008
C2003
C2001
R2003
R2001
C2002
R2002
C2007
C2004
C2006
R2006
R2004
C2005
C2008
R2005
P2001
C2010
R2009
R2007
C2009
R2008
P2002
C2011
R2030
Q2001
R2032
Q2003
R2031
Q2002
R2010
R2012
R2015
R2013
R2018
C2012
R2016
C2014


E
F
G
H
P2992
P2991
JL2601B
P2993
VPOWER
HUDSON
HQV
+SUB
MPWR
POFF
D2607
Q2504B
D2508
D2509
+9VSW
+12V
-9VSW
+9VVD
C2510
C2509
Q2504
R2514
Q2509
SHIELD
TO P2998
D2502
D2503
C2515
C2516
+5VVD
R2513
D2513
R2511
D2512
R2512
R2505
F2501
-5VVD
ADINSC
ADINSY
ADINCV
R2058
R2059
R2046
C2061
C2062
R2047
R2057
C2070
C2071
R2506
Q2506
Q2507
D2506
C2508
F2501B
C2505
4A/125V
Q2511
R2515
R2508
R2509
R2516
Q2512
C2513
C2507
D2510
P2502
R2068
R2067
Q2020
Q2019
R2065
R2064
Q2018
Q2017
C2044
C2043
C2048
C2047
C2069
Q2012
C2025
C2026
C2024
C2034
C2514
D2511
D2507
F2501A
F2502B
R2070
C2512
Q2021
R2072
C2080
C2045
C2046
C2072
R2061
C2073
C2074
D2505
R2614
R2613
R2601
F2502
D2002
D2001
R2074
R2619
R2616
JL8001A
C2050
C2049
Q2015
C2055
C2056
C2077
R2073
Q2022
R2071
C2079
Q2023
L2601
C2603
C2082
C2505
L2604
C2075
R2054
R2053
R2052
C2081
D2004
D2003
C2511
L2502
R2510
L2501
JL8002A
F2502A
C2052
C2051
R2056
R2078
R2076
C2083
D2504
R2077
C2067
C2084
R2507
D2501
C2032
C2053
C2054
Q2013
C2076
C2085
Q2025
C2024
APWR2
APWR1
SHIELD
TO P2999
C2502
+SUB
GNDSUB
~POFF
+12V
APOWER2
APOWER1
MPOWER
R2012
R2011
R2013
R2014
C2013
C2018
C2058
C2057
R2055
C2068
R2075
D2006
D2005
R2080
C2086
R2081
R2621
R2612
C2504
R2609
D2605
JL901B
C2501
Q2014
C2066
R2022
R2027
C2065
C2078
R2620
Q2608
C2014
R2017
C2016
R2021
R2019
R2020
C2017
P2003
R2062
Q2016
R2024
R2023
R2025
R2026
C2063
C2064
C2087
Q2026
Q2607
Q2609
L2602
Q2605
D2606
R2501
R2502
R2503
C2503
D2601
D2602
R2606
R2035
R2079
R2611
R2504
Q2501
P2004
R2036
L2603
R2602
R2615
C2605
R2618
R2617
Q2606
R2610
C2503
Q2502
P2601
R2603
Q2601
D2603
D2604
Q2603
R2028
P2005
Q2004
Q2005
P2603
C2602
P2602
C2601
C2020
P2604
C2606
C2604
P2605
R2604
R2608
Q2602
Q2604
R2605
R2607
C2019

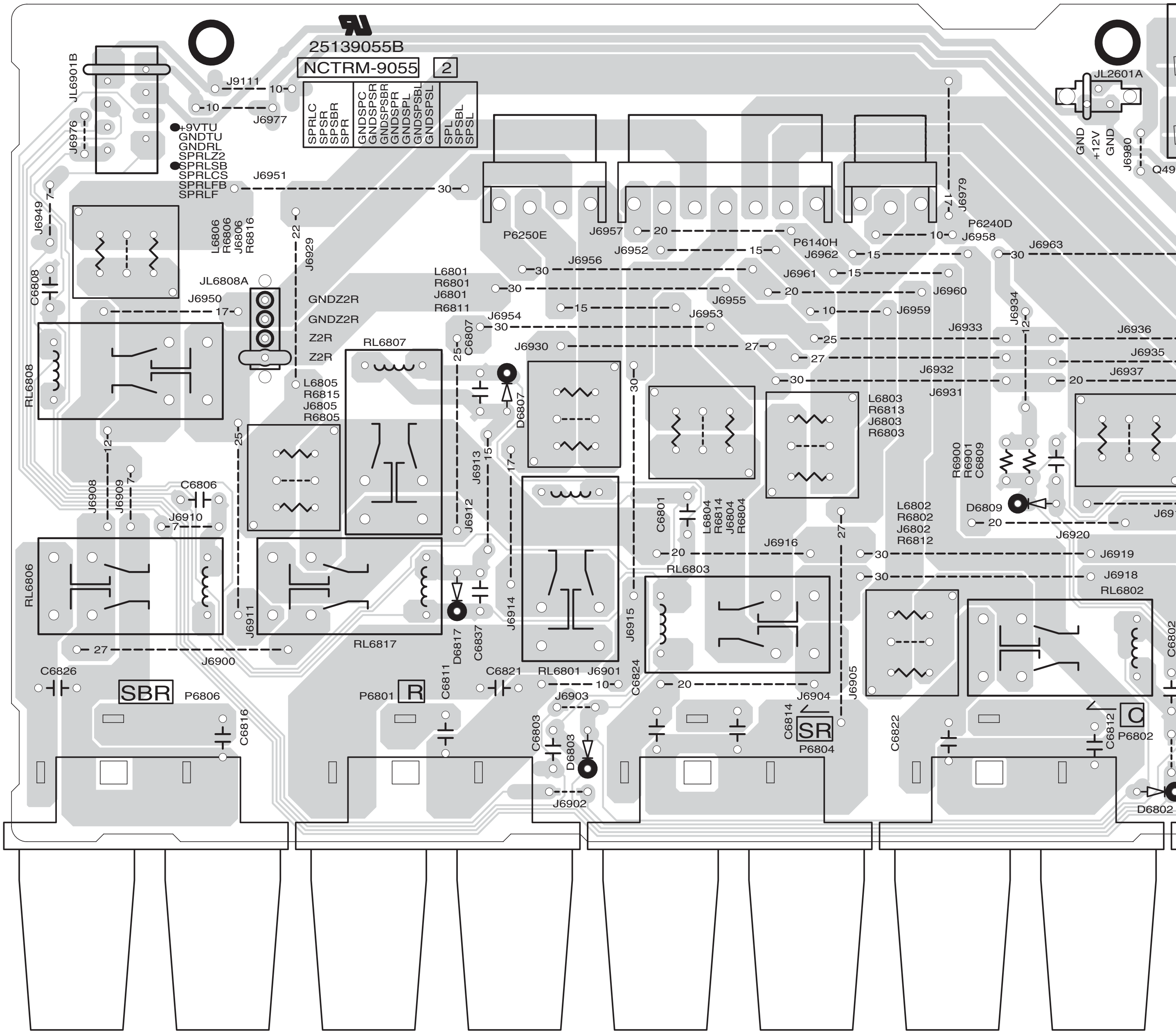
A B C D

1 2 3 4 5

PRINTED CIRCUIT BOARD VIEWS-5

U11 SP TERMINAL PC BOARD (NATRM-9055)

Component side


25139055B
NCTRM-9055
2
JL6901B
J6976
J9111
J6977
+9VTU
GNDTU
GNDRL
SPRLZ2
SPRLSB
SPRLCS
SPRLFB
SPRLF
SPRLC
SPSR
SPSBR
SPR
GNDSPC
GNDSPSR
GNDSPSBR
GNDSPR
GNDSPL
GNDSPSBL
GNDSPSL
SPL
SPSBL
SPSL
J6951
J6949
C6808
L6806
R6806
J6806
R6816
J6929
JL6808A
J6950
GNDZ2R
Z2R
RL6808
RL6807
L6805
R6815
J6805
R6805
P6250E
J6957
J6952
J6956
L6801
R6801
J6801
R6811
J6954
C6807
J6930
D6807
J6913
J6912
J6955
J6953
P6140H
J6962
J6961
J6960
J6959
P6240D
J6958
J6963
J6979
JL2601A
GND
+12V
GND
J6980
Q49
J6934
J6933
J6936
J6935
J6937
J6932
J6931
L6803
R6813
J6803
R6803
R6900
R6901
C6809
D6809
J6920
L6802
R6802
J6802
R6812
J6919
J6918
RL6802
C6806
J6908
J6909
J6910
RL6806
RL6817
J6911
J6900
C6826
SBR
P6806
C6816
D6817
C6837
J6914
C6801
L6804
R6814
J6804
R6804
J6916
RL6803
J6915
C6821
RL6801
J6901
C6824
P6801
R
C6811
J6903
C6803
D6803
J6902
J6904
J6905
C6814
SR
P6804
C6822
C
C6812
P6802
C6802
D6802
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27
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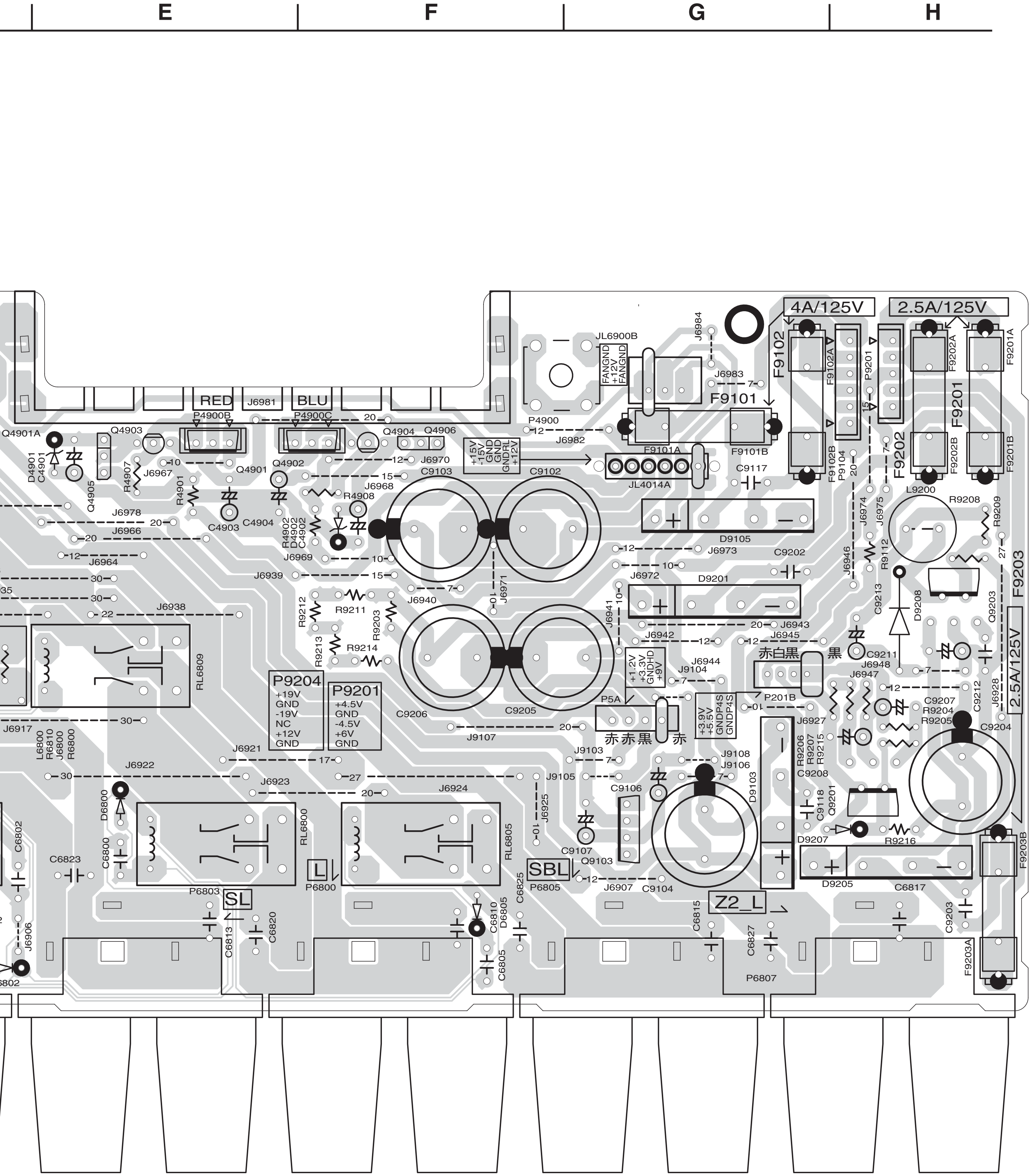
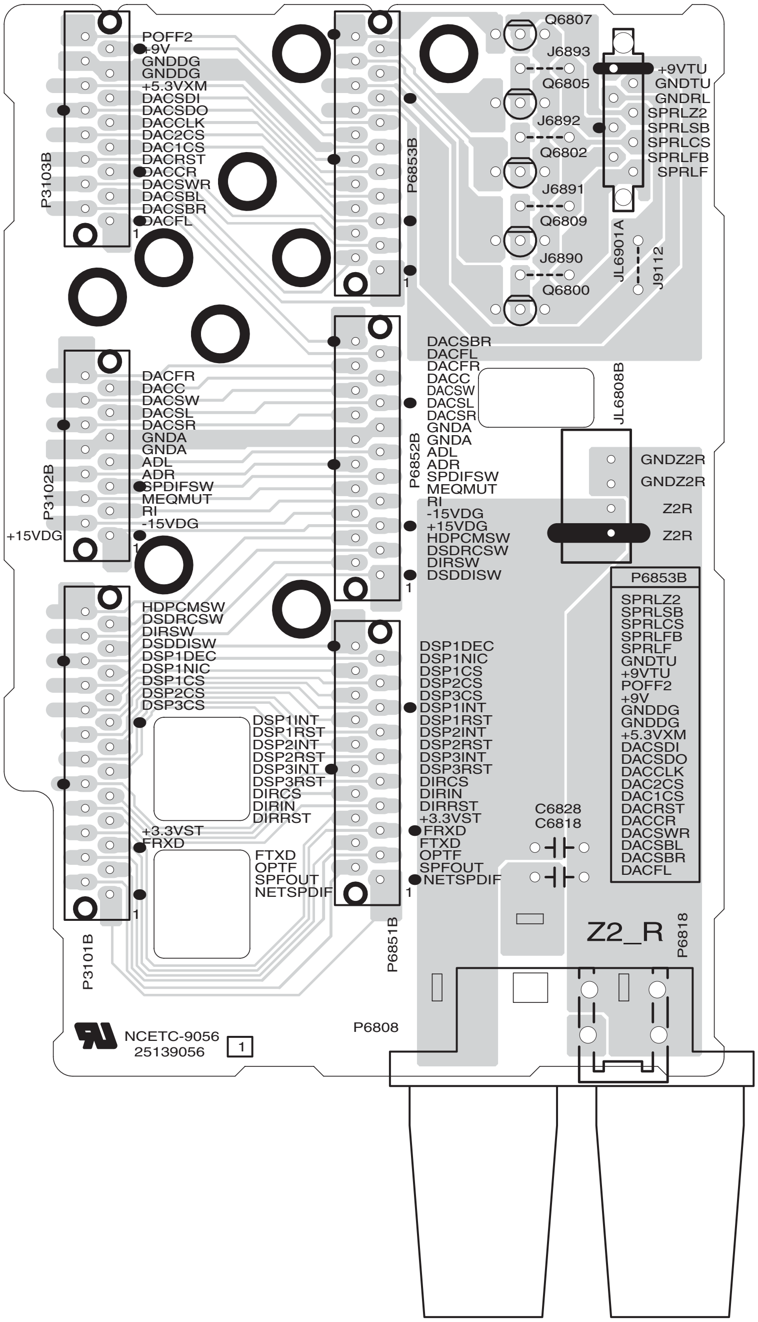
12
7


E
F
G
H
4A/125V
2.5A/125V
F9102
F9102A
F9102B
F9101
F9101A
F9101B
F9201
F9201A
F9201B
F9202
F9202A
F9202B
F9203
F9203A
F9203B
2.5A/125V
P9201
P9104
J6984
J6983
JL6900B
FANGND
+12V
FANGND
JL4014A
P4900
P4900B
P4900C
RED
BLU
J6981
J6982
+15V
-15V
GND
GNDRL
+12V
J6970
Q4901A
Q4903
Q4902
Q4904
Q4905
Q4906
Q4901
D4901
C4901
R4907
J6967
R4901
C4903
C4904
R4908
J6968
R4902
D4902
C4902
J6978
J6966
J6964
J6969
J6939
J6938
C9103
C9102
C9117
D9105
J6973
C9202
J6972
D9201
L9200
R9208
R9209
R9112
J6946
J6974
J6975
C9213
D9208
Q9203
J6940
J6971
J6941
R9212
R9211
R9203
R9213
R9214
RL6809
P9204
+19V
GND
-19V
NC
+12V
GND
P9201
+4.5V
GND
-4.5V
+6V
GND
C9206
C9205
J6942
J6943
J6945
赤白黒
黒
C9211
J6948
J6947
J6944
J9104
+1.2V
+3.3V
GNDHD
+9V
P5A
赤赤黒
赤
+3.9V
+5.5V
GNDP4S
GNDP4S
P201B
J6927
C9207
R9204
R9205
C9204
C9212
J6928
J9107
J6917
L6800
R6810
J6800
R6800
J6921
J6922
J6923
J6924
J9103
J9108
J9106
J9105
C9106
D9103
R9206
R9207
R9215
C9208
C9118
Q9201
D6800
RL6800
RL6805
J6925
C9107
Q9103
D9207
R9216
C6802
C6800
C6823
P6803
SL
L
P6800
SBL
P6805
J6907
C9104
D9205
C6817
C6813
C6820
C6825
C6810
D6805
C6805
C6815
Z2_L
C6827
C9203
J6906
P6807

PRINTED CIRCUIT BOARD VIEWS-6

U12 SP TERMINAL PC BOARD (NAETC-9056)

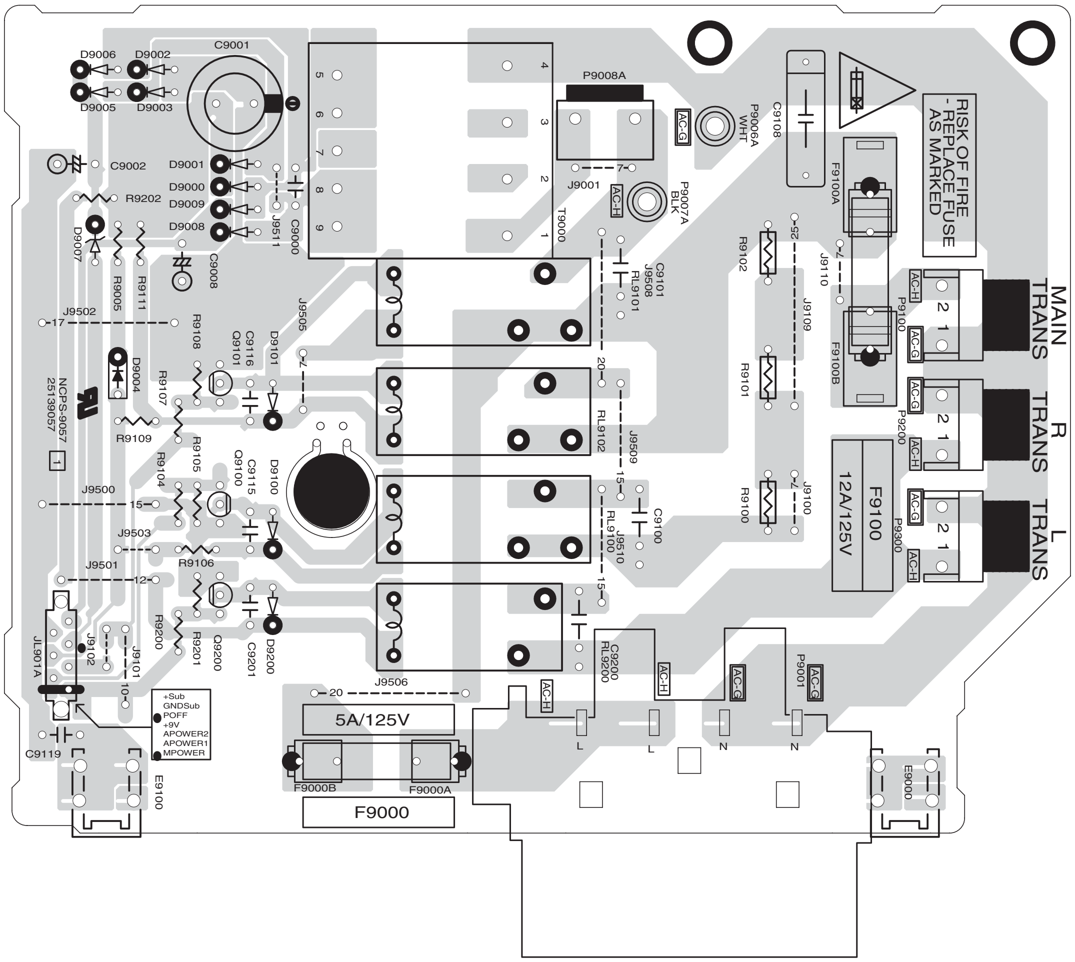
Component side


P3103B
POFF2
+9V
GNDDG
GNDDG
+5.3VXM
DACSDI
DACSDO
DACCLK
DAC2CS
DAC1CS
DACRST
DACCR
DACSWR
DACSBL
DACSBR
DACFL
1
P6853B
1
Q6807
J6893
Q6805
J6892
Q6802
J6891
Q6809
J6890
Q6800
+9VTU
GNDTU
GNDRL
SPRLZ2
SPRLSB
SPRLCS
SPRLFB
SPRLF
JL6901A
J9112
P3102B
DACFR
DACC
DACSW
DACSL
DACSR
GNDA
GNDA
ADL
ADR
SPDIFSW
MEQMUT
RI
-15VDG
+15VDG
1
P6852B
DACSBR
DACFL
DACFR
DACC
DACSW
DACSL
DACSR
GNDA
GNDA
ADL
ADR
SPDIFSW
MEQMUT
RI
-15VDG
+15VDG
HDPCMSW
DSDRCSW
DIRSW
DSDDISW
1
JL6808B
GNDZ2R
GNDZ2R
Z2R
Z2R
P6853B
SPRLZ2
SPRLSB
SPRLCS
SPRLFB
SPRLF
GNDTU
+9VTU
POFF2
+9V
GNDDG
GNDDG
+5.3VXM
DACSDI
DACSDO
DACCLK
DAC2CS
DAC1CS
DACRST
DACCR
DACSWR
DACSBL
DACSBR
DACFL
P3101B
HDPCMSW
DSDRCSW
DIRSW
DSDDISW
DSP1DEC
DSP1NIC
DSP1CS
DSP2CS
DSP3CS
DSP1INT
DSP1RST
DSP2INT
DSP2RST
DSP3INT
DSP3RST
DIRCS
DIRIN
DIRRST
+3.3VST
FRXD
FTXD
OPTF
SPFOUT
NETSPDIF
1
P6851B
DSP1DEC
DSP1NIC
DSP1CS
DSP2CS
DSP3CS
DSP1INT
DSP1RST
DSP2INT
DSP2RST
DSP3INT
DSP3RST
DIRCS
DIRIN
DIRRST
+3.3VST
FRXD
FTXD
OPTF
SPFOUT
NETSPDIF
1
C6828
C6818
Z2_R
P6818
P6808
NCETC-9056
25139056
1

PRINTED CIRCUIT BOARD VIEWS-7

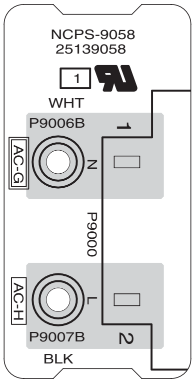
U13 POWER SUPPLY PC BOARD (NAPS-9057)

Component side


D9006
D9002
C9001
D9005
D9003
C9002
D9001
D9000
D9009
D9008
R9202
D9007
R9005
R9111
C9008
J9511
C9900
J9502
17
R9108
J9505
Q9101
C9116
D9101
D9004
NCPS-9057
25139057
R9107
R9109
R9105
R9104
Q9100
C9115
D9100
J9500
15
J9503
R9106
J9501
12
R9200
R9201
Q9200
C9201
D9200
JL901A
J9102
J9101
10
+Sub
GNDSub
POFF
+9V
APOWER2
APOWER1
MPOWER
C9119
E9100
T9000
P9008A
J9001
7
P9006A
WHT
AC-G
P9007A
BLK
AC-H
C9108
C9101
J9508
RL9101
20
RL9102
J9509
15
C9100
J9510
RL9100
15
C9200
RL9200
J9506
20
5A/125V
F9000B
F9000A
F9000
R9102
R9101
R9100
J9110
J9109
J9100
25
7
F9100A
F9100B
F9100
12A/125V
P9100
P9200
P9300
P9001
RISK OF FIRE
- REPLACE FUSE
AS MARKED
MAIN
TRANS
R
TRANS
L
TRANS
L
L
N
N
E9000

U14 INLET PC BOARD (NAPS-9058)

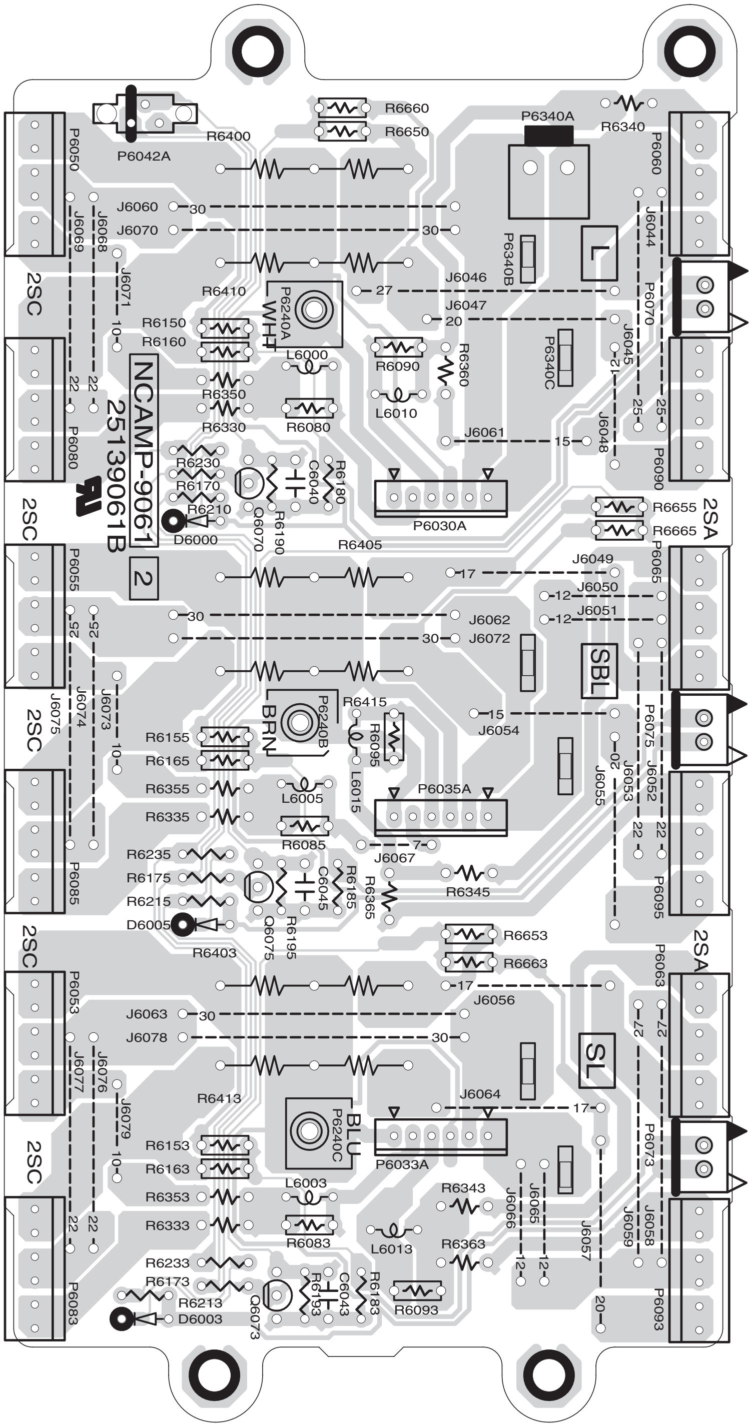
Component side


NCPS-9058
25139058
1
WHT
P9006B
AC-G
N
1
P9000
AC-H
L
P9007B
2
BLK

PRINTED CIRCUIT BOARD VIEWS-8

U16 POWER AMP PC BOARD (NAAMP-9061)

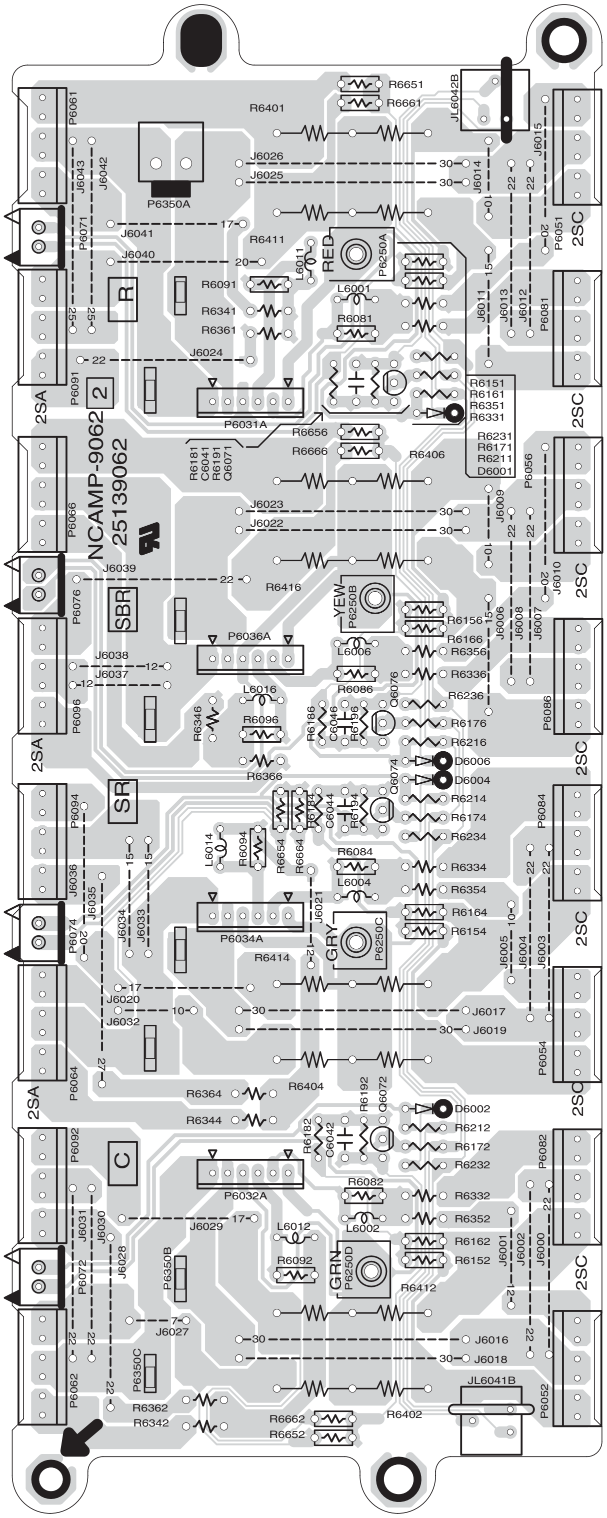
Component side


R6660
R6650
P6340A
R6340
P6050
P6042A
R6400
P6060
J6060
J6070
J6069
J6068
J6044
P6340B
L
J6071
2SC
R6410
P6240A
WHT
J6046
J6047
P6070
R6150
R6160
L6000
R6090
R6360
P6340C
J6045
R6350
L6010
NCAMP-9061
251390061B
R6330
R6080
J6061
J6048
P6080
R6230
R6170
R6210
C6040
R6180
Q6070
R6190
D6000
P6030A
R6655
R6665
2SA
P6090
R6405
2
J6049
J6050
J6051
P6055
P6065
J6062
J6072
SBL
R6415
P6240B
BRN
R6095
L6015
J6054
P6075
J6073
J6074
J6075
R6155
R6165
R6355
R6335
L6005
P6035A
J6053
J6052
J6055
R6085
J6067
R6235
R6175
R6215
D6005
C6045
R6185
R6365
Q6075
R6195
R6345
P6085
P6095
R6403
R6653
R6663
P6063
J6063
J6078
J6056
P6053
J6077
J6076
SL
R6413
J6064
P6240C
BLU
J6079
P6033A
R6153
R6163
P6073
R6353
L6003
R6343
J6066
J6065
J6058
J6059
J6057
R6333
R6083
L6013
R6363
R6233
R6173
R6213
D6003
Q6073
R6193
C6043
R6183
R6093
P6083
P6093
30
27
20
12
25
22
15
17
10
7

PRINTED CIRCUIT BOARD VIEWS-9

U17 POWER AMP PC BOARD (NAAMP-9062)

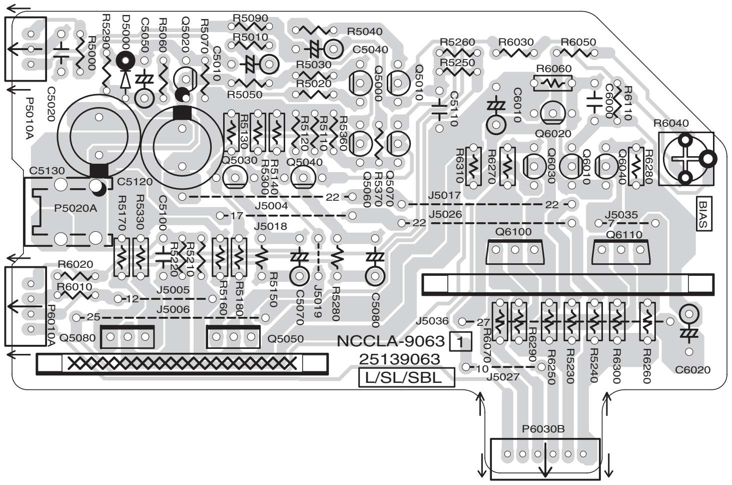
Component side


R6651
R6661
R6401
JL6042B
P6061
J6043
J6042
J6026
J6025
J6014
J6015
P6350A
J6041
R6411
J6040
RED
P6250A
P6051
2SC
P6071
R6091
R6341
R6361
L6011
L6001
R6081
J6011
J6013
J6012
P6081
R
J6024
P6091
2
P6031A
2SA
R6151
R6161
R6351
R6331
R6231
R6171
R6211
D6001
R6656
R6666
R6406
R6181
C6041
R6191
Q6071
NCAMP-9062
25139062
P6056
P6066
J6023
J6022
J6009
J6039
R6416
P6076
SBR
YEW
P6250B
J6010
J6006
J6008
J6007
R6156
R6166
R6356
P6036A
J6038
J6037
L6006
R6336
L6016
R6086
Q6076
R6236
P6096
R6346
R6096
R6186
C6046
R6196
R6176
R6216
P6086
R6366
D6006
D6004
Q6074
SR
P6094
R6214
R6174
R6234
C6044
R6194
R6184
R6654
R6664
L6014
R6094
R6084
L6004
R6334
R6354
P6084
P6036
J6035
J6034
J6033
J6021
R6164
R6154
P6074
P6034A
GRY
P6250C
J6005
J6004
J6003
R6414
J6020
J6032
J6017
J6019
P6064
R6364
R6344
R6404
R6192
Q6072
D6002
R6212
R6172
R6232
R6182
C6042
P6054
P6092
C
P6032A
R6082
R6332
R6352
J6031
J6030
J6029
L6012
L6002
R6162
R6152
P6082
J6028
P6350B
R6092
GRN
P6250D
R6412
J6001
J6002
J6000
P6072
J6027
J6016
J6018
P6350C
JL6041B
P6062
R6362
R6342
R6662
R6652
R6402
P6052

PRINTED CIRCUIT BOARD VIEWS-10

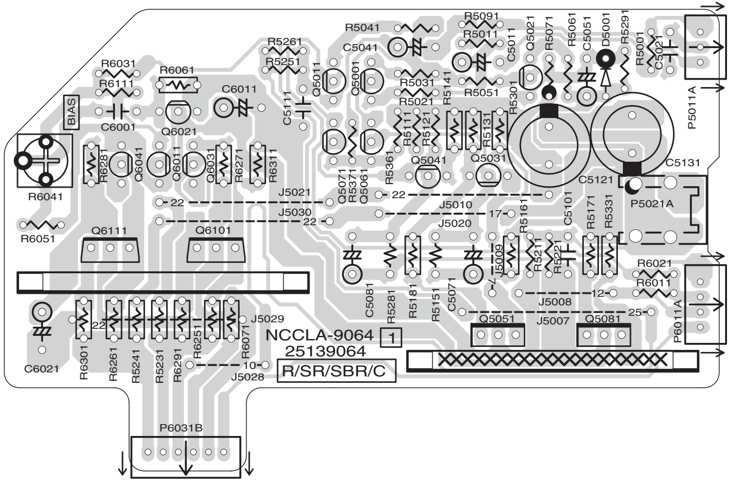
U18 POWER AMP PC BOARD (NACLA-9063)

Component side


P5010A
C5020
R5290
R5000
D5000
C5050
R5060
Q5020
R5070
C5010
R5090
R5010
R5030
R5050
R5020
R5040
C5040
Q5000
Q5010
C5110
R5260
R5250
R6030
R6050
R6060
C6010
Q6020
C6000
R6110
R6040
C5130
C5120
P5020A
R5130
R5140
R5300
R5120
R5110
R5360
Q5030
Q5040
Q5070
R5370
Q5060
R6310
R6270
Q6030
Q6010
Q6040
R6280
J5017
J5004
J5018
J5026
J5035
BIAS
Q6100
Q6110
R5170
R5330
C5100
R5220
R5210
R5160
R5180
R5150
C5070
J5019
R5280
C5080
R6020
R6010
J5005
J5006
P6010A
Q5080
Q5050
J5036
R6070
R6290
R6250
R5230
R5240
R6300
R6260
C6020
NCCLA-9063
25139063
L/SL/SBL
J5027
P6030B

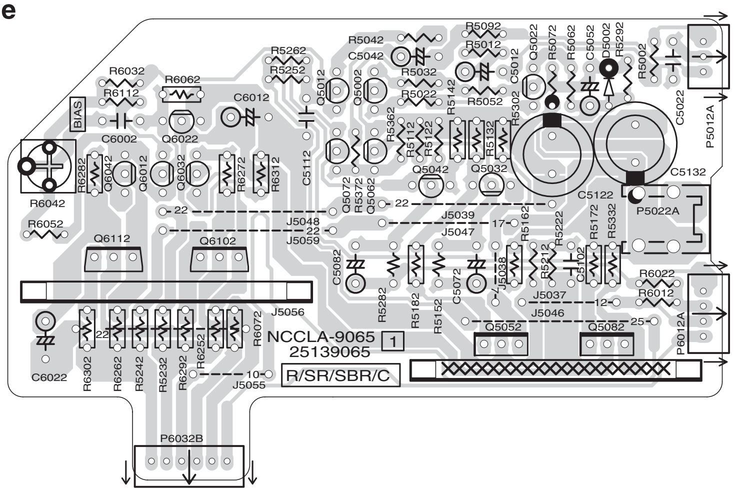
U19 POWER AMP PC BOARD (NACLA-9064)

Component side


R5041
R5091
R5011
C5011
Q5021
R5071
R5061
C5051
D5001
R5291
R5001
C5021
P5011A
R5261
R5251
C5041
R6031
R6111
R6061
C6011
C6001
Q6021
BIAS
Q5011
Q5001
R5031
R5021
R5141
R5051
R5301
C5111
R5121
R5111
R5131
R5361
Q5041
Q5031
C5121
C5131
R6041
R6281
Q6041
Q6011
Q6031
R6271
R6311
Q5071
R5371
Q5061
J5021
J5030
J5010
J5020
R5161
C5101
R5171
R5331
P5021A
R6051
Q6111
Q6101
C5081
R5281
R5181
R5151
C5071
J5009
R5211
R5221
J5008
J5007
Q5051
Q5081
R6021
R6011
P6011A
C6021
R6301
R6261
R5241
R5231
R6291
R6251
R6071
J5029
J5028
NCCLA-9064
25139064
R/SR/SBR/C
P6031B

U20 POWER AMP PC BOARD (NACLA-9065)

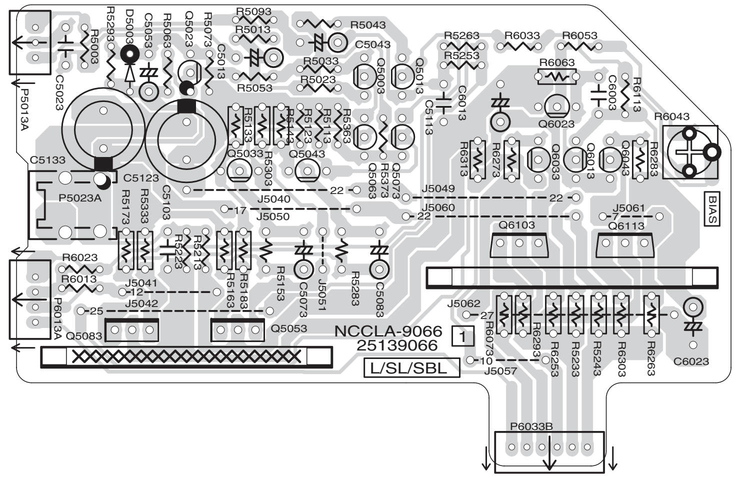
Component side


R5042
R5092
R5012
C5012
Q5022
R5072
R5062
C5052
D5002
R5292
R5002
C5022
P5012A
R5262
R5252
C5042
R6032
R6112
R6062
C6012
C6002
Q6022
BIAS
Q5012
Q5002
R5032
R5022
R5142
R5052
R5302
C5112
R5362
R5112
R5122
R5132
Q5042
Q5032
C5122
C5132
R6042
R6282
Q6042
Q6012
Q6032
R6272
R6312
Q5072
R5372
Q5062
J5048
J5059
J5039
J5047
R5162
R5222
R5172
R5332
P5022A
R6052
Q6112
Q6102
C5082
R5282
R5182
R5152
C5072
J5038
R5212
C5102
J5037
J5046
Q5052
Q5082
R6022
R6012
P6012A
C6022
R6302
R6262
R5242
R5232
R6292
R6252
R6072
J5056
J5055
NCCLA-9065
25139065
R/SR/SBR/C
P6032B

PRINTED CIRCUIT BOARD VIEWS-11

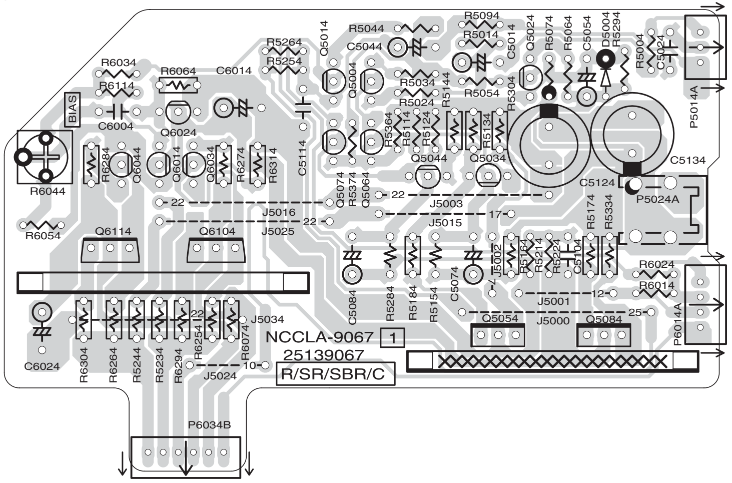
U21 POWER AMP PC BOARD (NACLA-9066)

Component side


P5013A
C5023
R5003
R5293
D5003
C5053
R5063
Q5023
R5073
C5013
R5093
R5013
R5053
R5043
C5043
R5033
R5023
Q5003
Q5013
C5113
C6013
R5263
R5253
R6033
R6053
R6063
C6003
R6113
Q6023
R6043
R5133
R5143
R5123
R5113
R5363
Q5033
Q5043
R5303
Q5073
Q5063
R5373
R6313
R6273
Q6033
Q6013
Q6043
R6283
C5133
C5123
P5023A
R5173
R5333
C5103
J5040
J5050
J5049
J5060
J5061
Q6103
Q6113
BIAS
R6023
R6013
R5223
R5213
R5163
R5183
R5153
C5073
J5051
R5283
C5083
J5041
J5042
P6013A
Q5083
Q5053
J5062
R6073
R6293
R6253
R5233
R5243
R6303
R6263
C6023
J5057
NCCLA-9066
25139066
1
L/SL/SBL
P6033B
22
17
12
25
27
10

U22 POWER AMP PC BOARD (NACLA-9067)

Component side


R5264
R5254
Q5014
R5044
C5044
R5094
R5014
C5014
Q5024
R5074
R5064
C5054
D5004
R5294
R5004
C5024
P5014A
R6034
R6114
R6064
C6014
C6004
Q6024
BIAS
C5114
Q5004
R5034
R5024
R5144
R5054
R5304
R5364
R5114
R5124
R5134
Q5044
Q5034
C5134
C5124
P5024A
R6284
Q6044
Q6014
Q6034
R6274
R6314
R6044
Q5074
R5374
Q5064
J5016
J5003
J5015
J5025
R6054
Q6114
Q6104
R5174
R5334
C5084
R5284
R5184
R5154
C5074
J5002
R5164
R5214
R5224
C5104
R6024
R6014
J5001
J5000
Q5054
Q5084
P6014A
C6024
R6304
R6264
R5244
R5234
R6294
R6254
R6074
J5034
J5024
NCCLA-9067
1
25139067
R/SR/SBR/C
P6034B
22
17
12
25
10

1

2

3

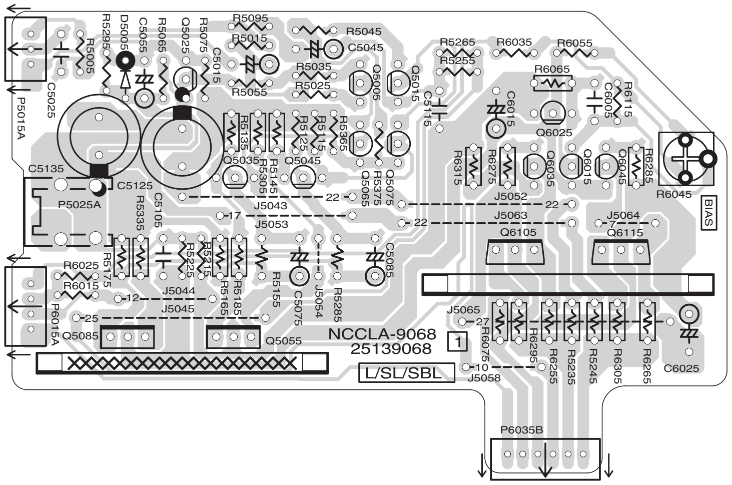
4

5

PRINTED CIRCUIT BOARD VIEWS-12

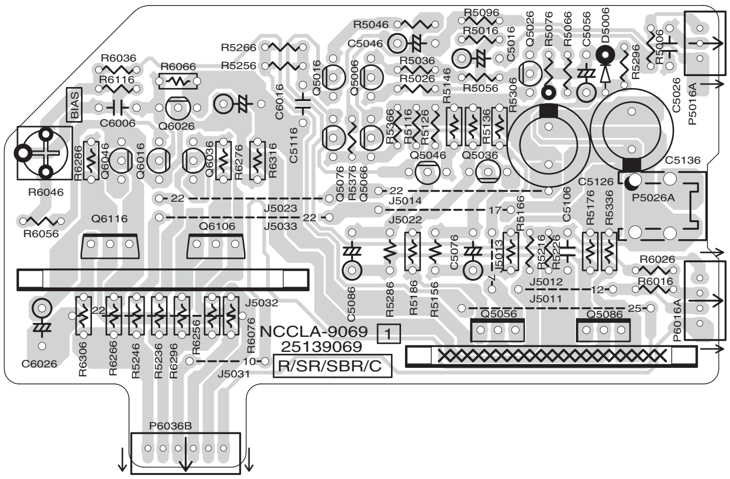
U23 POWER AMP PC BOARD (NACLA-9068)

Component side


P5015A
C5025
R5005
R5295
D5005
C5055
R5065
Q5025
R5075
C5015
R5095
R5015
R5055
R5045
C5045
R5035
R5025
Q5005
Q5015
C5115
R5265
R5255
R6035
R6055
R6065
C6015
Q6025
C6005
R6115
R5135
R5145
R5305
Q5035
R5125
R5115
Q5045
R5365
Q5065
R5375
Q5075
R6315
R6275
Q6035
Q6015
Q6045
R6285
R6045
BIAS
C5135
C5125
P5025A
R5335
C5105
J5043
J5053
J5052
J5063
J5064
Q6105
Q6115
R6025
R6015
R5175
R5225
R5215
R5165
R5185
R5155
C5075
J5054
R5285
C5085
P6015A
J5044
J5045
Q5085
Q5055
J5065
R6075
R6295
R6255
R5235
R5245
R6305
R6265
C6025
J5058
NCCLA-9068
25139068
1
L/SL/SBL
P6035B
22
17
12
25
27
10
7

U24 POWER AMP PC BOARD (NACLA-9069)

Component side


R5046
R5096
R5016
C5046
R5266
R5256
R5036
R5026
R5056
R6036
R6116
R6066
C6006
Q6026
C6016
Q5016
Q5006
C5116
C5016
Q5026
R5076
R5066
C5056
D5006
R5296
R5006
C5026
P5016A
R5146
R5306
BIAS
R6286
Q6046
Q6016
Q6036
R6276
R6316
R5366
R5116
R5126
R5136
Q5046
Q5036
C5136
C5126
P5026A
R6046
Q5076
R5376
Q5066
J5014
J5023
J5022
J5033
R5166
C5106
R5176
R5336
R6056
Q6116
Q6106
R5286
R5186
R5156
C5076
C5086
J5013
R5216
R5226
J5012
J5011
R6026
R6016
P6016A
Q5056
Q5086
J5032
C6026
R6306
R6266
R5246
R5236
R6296
R6256
R6076
J5031
NCCLA-9069
25139069
1
R/SR/SBR/C
P6036B
22
17
12
25
10
7

PRINTED CIRCUIT BOARD VIEWS-13

U25 DSP PC BOARD (NADSP-9072)

Side-A

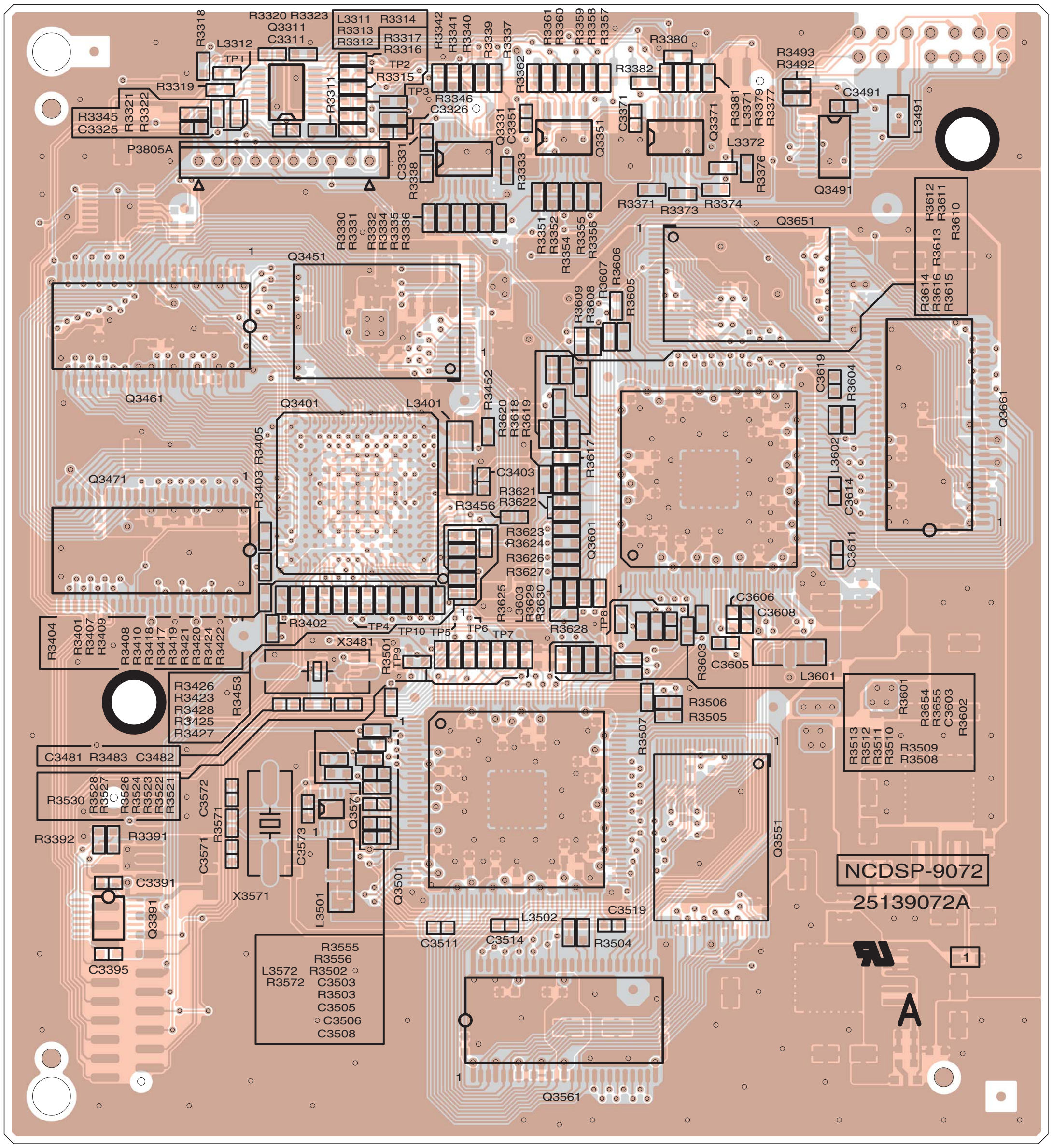
1

2

3

4

5


R3318
R3320 R3323
Q3311
C3311
L3312
TP1
L3311 R3314
R3313
R3312
R3317
R3316
TP2
R3315
TP3
R3319
R3345
C3325
R3321
R3322
R3311
R3346
C3326
R3342
R3341
R3340
R3339
R3337
R3362
R3361
R3360
R3359
R3358
R3357
R3382
R3380
R3493
R3492
C3491
L3491
Q3491
P3805A
R3338
C3331
Q3331
C3351
R3333
Q3351
C3371
Q3371
R3381
L3371
R3379
R3377
L3372
R3376
R3371
R3373
R3374
R3330
R3331
R3332
R3334
R3335
R3336
R3351
R3352
R3354
R3355
R3356
Q3651
R3612
R3611
R3610
R3613
R3614
R3616
R3615
Q3451
Q3461
R3609
R3608
R3607
R3606
R3605
C3619
R3604
Q3661
Q3401
L3401
R3452
R3620
R3618
R3619
R3617
L3602
C3614
C3611
Q3471
R3403
R3405
C3403
R3621
R3622
R3456
R3623
R3624
R3626
R3627
Q3601
R3625
R3603
R3629
R3630
TP8
C3606
C3608
R3404
R3401
R3407
R3409
R3408
R3410
R3418
R3417
R3419
R3421
R3420
R3424
R3422
R3402
TP4
TP10
TP5
TP6
TP7
R3628
R3603
C3605
L3601
X3481
R3501
TP9
R3426
R3423
R3428
R3425
R3427
R3453
R3506
R3505
R3601
R3654
R3655
C3653
R3602
C3481 R3483 C3482
R3530
R3528
R3527
R3526
R3524
R3523
R3522
R3521
C3572
R3507
R3513
R3512
R3511
R3510
R3509
R3508
R3392
R3391
R3571
C3571
C3573
Q3571
Q3551
C3391
Q3391
X3571
L3501
Q3501
NCDSP-9072
25139072A
C3395
L3502
C3519
C3511
C3514
R3504
R3555
R3556
L3572 R3502
R3572 C3503
R3503
C3505
C3506
C3508
Q3561
A
1

A B C D

PRINTED CIRCUIT BOARD VIEWS-14

U25 DSP PC BOARD (NADSP-9072)

Side-B

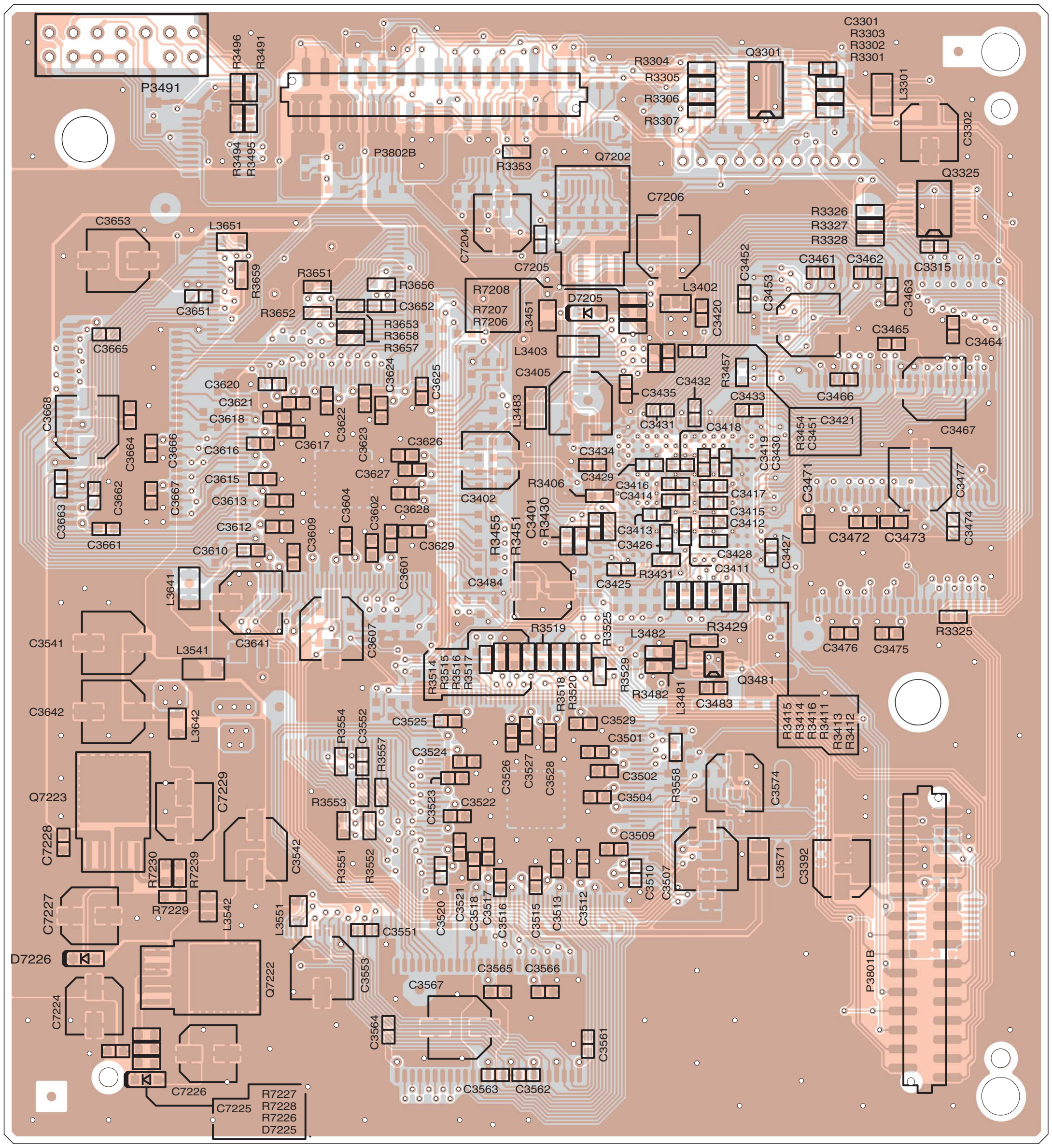
1

2

3

4

5


P3491
R3496
R3491
R3494
R3495
P3802B
R3353
Q7202
R3304
R3305
R3306
R3307
Q3301
C3301
R3303
R3302
R3301
L3301
C3302
Q3325
C3653
L3651
C7204
C7205
C7206
R3326
R3327
R3328
C3315
C3461
C3462
C3452
R3659
R3651
R3656
C3652
R3652
R3653
R3658
R3657
C3651
R7208
R7207
R7206
L3451
D7205
L3402
C3420
C3453
C3463
C3465
C3464
C3665
L3403
C3405
C3620
C3621
C3618
C3624
C3625
C3622
C3623
C3617
C3616
L3483
C3435
C3432
C3457
C3433
C3466
C3431
C3418
C3454
C3451
C3421
C3467
C3668
C3664
C3666
C3626
C3627
C3434
C3419
C3430
C3471
C3477
C3615
C3613
C3662
C3667
C3663
C3604
C3602
C3628
C3402
R3406
C3429
C3416
C3414
C3417
C3415
C3412
C3612
C3661
C3609
C3610
C3629
R3455
R3451
C3401
R3430
C3413
C3426
C3428
C3427
C3472
C3473
C3474
C3601
C3484
R3431
C3411
C3425
L3641
C3641
C3607
R3519
R3525
L3482
R3429
C3476
C3475
R3325
C3541
L3541
R3514
R3515
R3516
R3517
R3518
R3520
R3529
R3482
Q3481
L3481
C3483
C3642
L3642
R3554
C3552
C3525
C3529
R3415
R3414
R3416
R3411
R3413
R3412
C3501
R3557
C3524
C3526
C3527
C3528
C3502
R3558
C3574
Q7223
C7229
R3553
C3523
C3522
C3504
C7228
C3542
R7230
R7239
R3551
R3552
C3509
C3520
C3521
C3518
C3517
C3516
C3515
C3513
C3512
C3510
C3507
L3571
C3392
R7229
C7227
L3542
L3551
C3551
D7226
Q7222
C3553
C3565
C3566
P3801B
C3567
C7224
C3564
C3561
C7226
C7225
R7227
R7228
R7226
D7225
C3563
C3562

A B C D

PRINTED CIRCUIT BOARD VIEWS-15

U27 DAC PC BOARD (NADG-9074)

Side-A

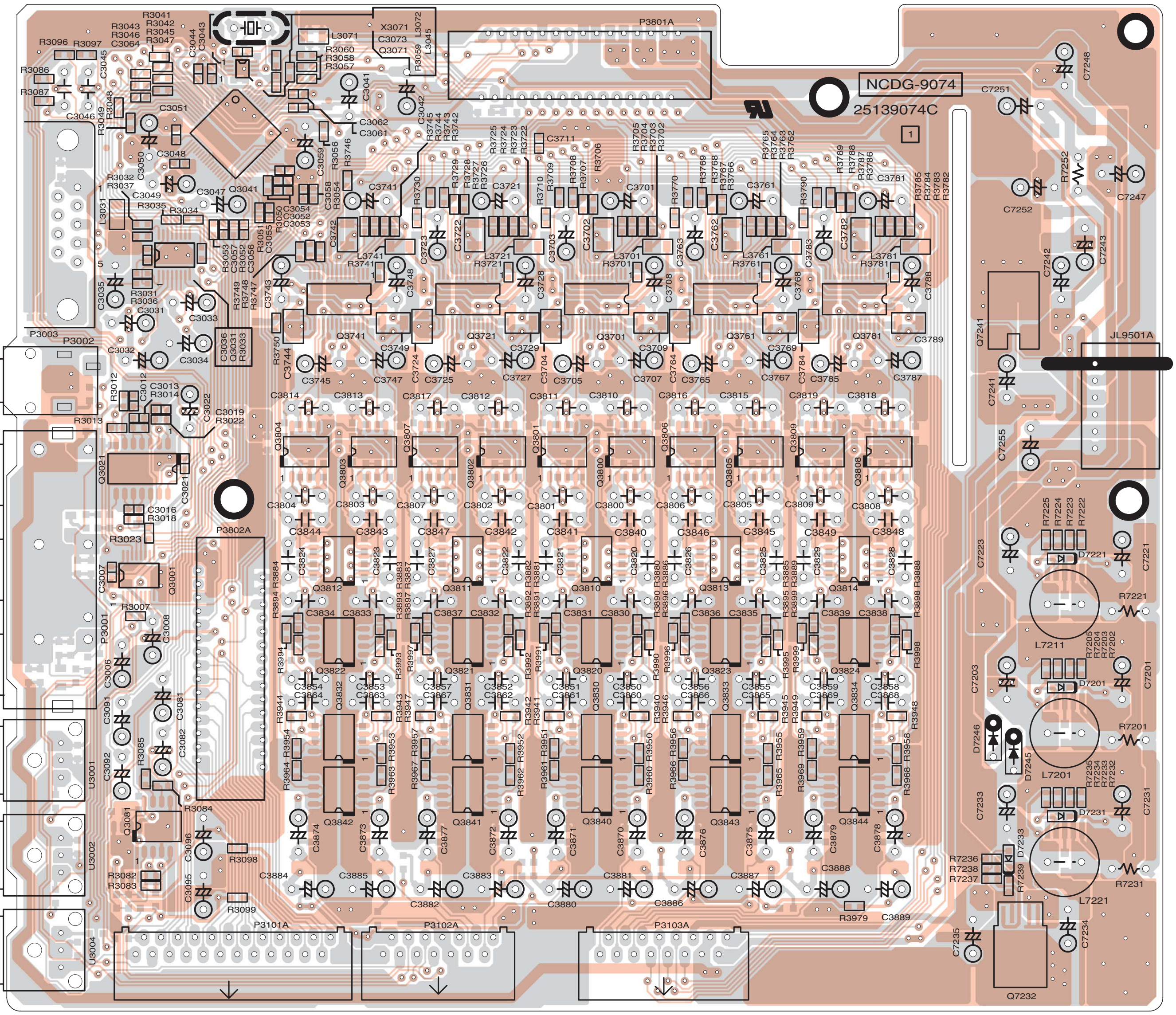
1

2

3

4

5


NCDG-9074
25139074C
P3801A
P3802A
P3101A
P3102A
P3103A
P3002
P3003
P3001
JL9501A
X3071
Q3071
L3071
L3072
L3045
L3031
U3001
U3002
U3004
Q3041
Q3021
Q3001
Q3081
Q3741
Q3721
Q3701
Q3761
Q3781
Q3801
Q3802
Q3803
Q3804
Q3805
Q3806
Q3807
Q3808
Q3809
Q3800
Q3810
Q3811
Q3812
Q3813
Q3814
Q3820
Q3821
Q3822
Q3823
Q3824
Q3830
Q3831
Q3832
Q3833
Q3834
Q3840
Q3841
Q3842
Q3843
Q3844
Q7241
Q7232
L3741
L3721
L3701
L3761
L3781
L7211
L7201
L7221
D7221
D7201
D7231
D7233
D7245
D7246
R7221
R7201
R7231
R7252
C7248
C7251
C7252
C7247
C7242
C7243
C7241
C7255
C7223
C7221
C7203
C7201
C7233
C7231
C7235
C7234

A B C D

PRINTED CIRCUIT BOARD VIEWS-16

U27 DAC PC BOARD (NADG-9074)

Side-B

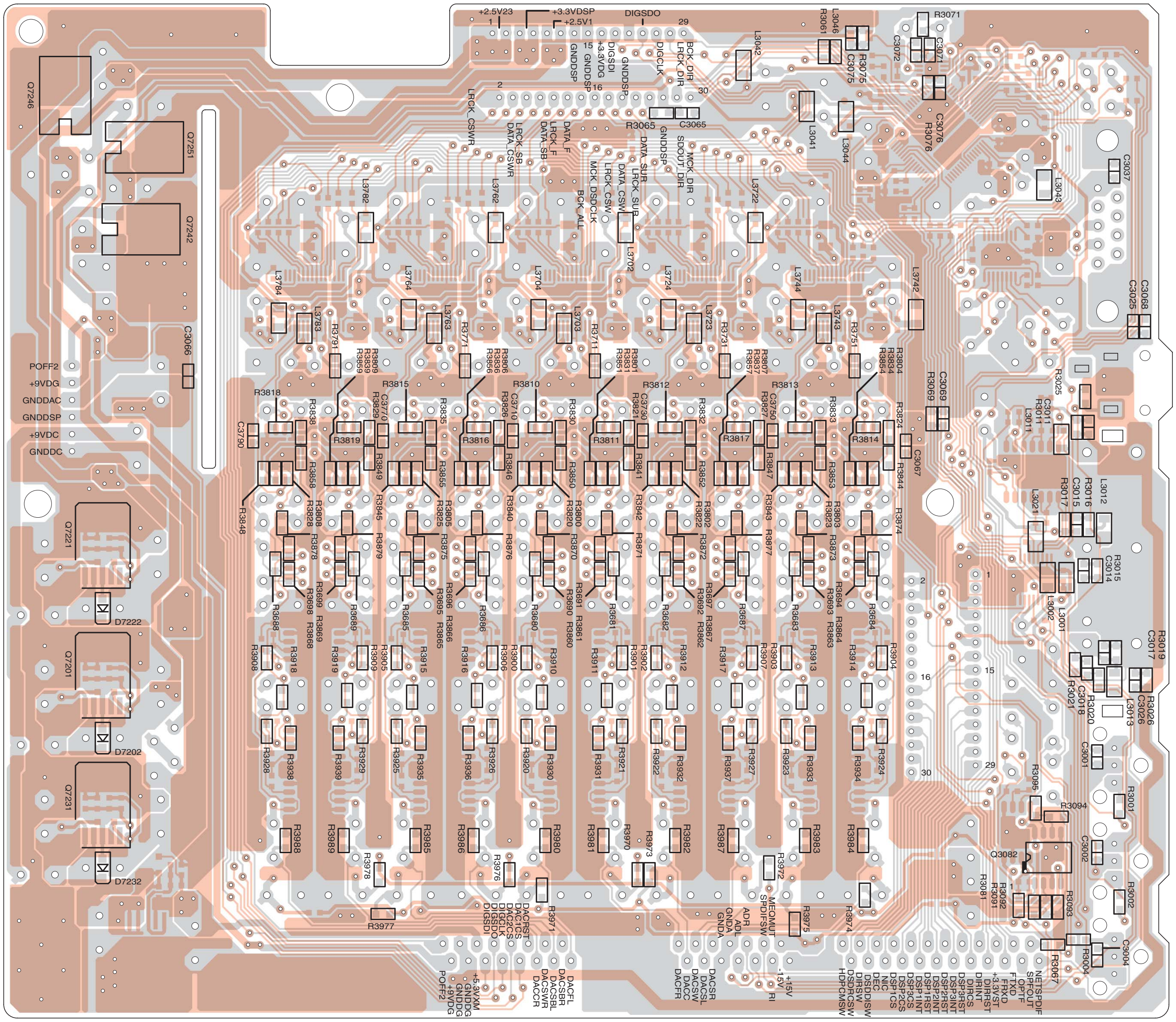
1

2

3

4

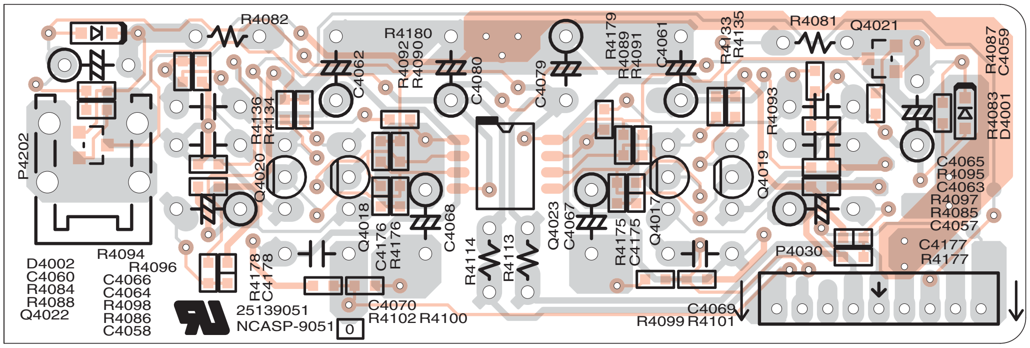
5


+2.5V23
+3.3VDSP
+2.5V1
DIGSDO
LRCK_CSWR
LRCK_SB
DATA_CSWR
DATA_SB
LRCK_F
DATA_F
MCK_DSPCLK
BCK_ALL
DATA_CSW
LRCK_CSW
LRCK_SUR
DATA_SUR
GNDDSP
SDOUT_DIR
MCK_DIR
BCK_DIR
LRCK_DIR
DIGCLK
POFF2
+9VDG
GNDDAC
GNDDSP
+9VDC
GNDDC
Q7246
Q7251
Q7242
Q7221
Q7201
Q7231
D7222
D7202
D7232
C3066
C3790
R3818
R3815
R3810
R3812
R3813
R3819
R3816
R3811
R3817
R3814
R3848
L3784
L3764
L3704
L3724
L3744
L3742
L3782
L3762
L3722
L3702
L3041
L3044
L3042
L3043
C3065
R3065
R3071
C3037
C3068
C3025
C3069
R3069
R3025
L3011
L3012
L3021
L3013
C3015
R3016
R3017
R3015
C3014
L3002
L3001
R3019
C3017
R3026
C3026
C3018
R3020
R3021
C3001
R3095
R3094
R3001
Q3082
C3002
R3081
R3091
R3092
R3093
R3002
R3067
R3004
C3004
R3977
R3978
R3976
R3971
R3973
R3972
R3975
R3974
MEGMUT
SPDIFSW
ADR
ADL
GNDA
+15V
-15V
DACFL
DACSBL
DACSBR
DACSWR
DACCR
DACSR
DACSL
DACC
DACFR
POFF2
+9VDG
GNDDG
+5.3VXM
DIGSDI
DIGSDO
DAC2CS
DACSCK
DACRST
HDPOMSW
DSPRCSW
DIRSW
DEDISW
NIC
DSP1CS
DSP2CS
DSP3CS
DSP1INT
DSP2INT
DSP3RST
DSP2RST
DIRINT
DIRCS
DIRRST
+3.3VST
FRXD
FTXD
SPFOUT
NETSPDIF

PRINTED CIRCUIT BOARD VIEWS-17

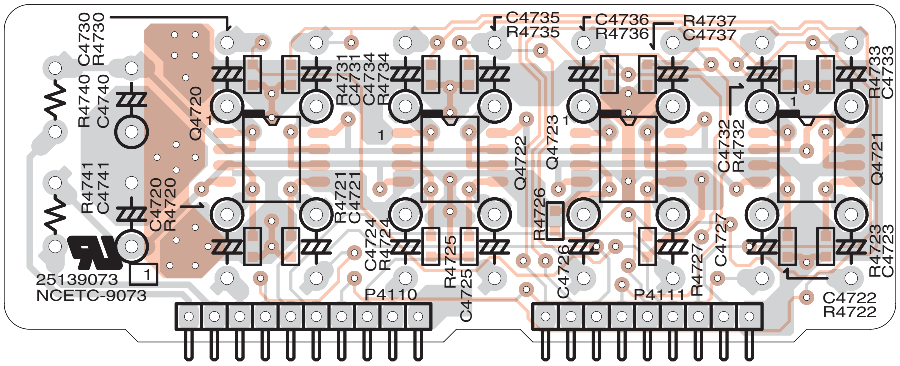
U07 PHONO PC BOARD (NAASP-9051)

Side-A


R4082
R4180
R4092
R4090
C4062
C4080
C4079
R4179
R4089
R4091
C4061
R4133
R4135
R4081
Q4021
R4087
C4059
P4202
R4136
R4134
Q4020
R4093
Q4019
R4083
D4001
C4065
R4095
C4063
R4097
R4085
C4057
Q4018
C4176
R4176
C4068
R4114
R4113
Q4023
C4067
R4175
C4175
Q4017
P4030
C4177
R4177
D4002
C4060
R4084
R4088
Q4022
R4094
R4096
C4066
C4064
R4098
R4086
C4058
R4178
C4178
25139051
NCASP-9051
0
C4070
R4102
R4100
C4069
R4099
R4101

U26 AMPLIFIER PC BOARD (NAETC-9073)

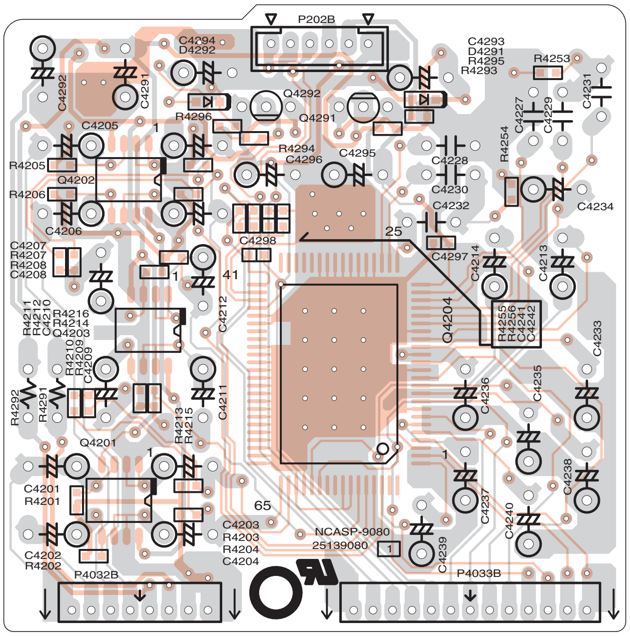
Side-A


C4730
R4730
C4735
R4735
C4736
R4736
R4737
C4737
R4740
C4740
Q4720
R4731
C4731
C4734
R4734
Q4722
Q4723
R4733
C4733
C4732
R4732
Q4721
R4741
C4741
C4720
R4720
R4721
C4721
C4724
R4724
R4725
C4725
R4726
C4726
R4727
C4727
R4723
C4723
1
25139073
NCETC-9073
P4110
P4111
C4722
R4722

PRINTED CIRCUIT BOARD VIEWS-18

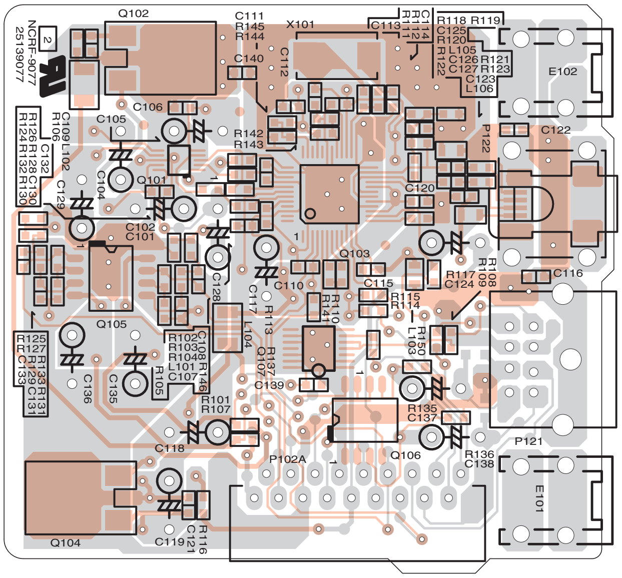
U32 AMPLIFIER PC BOARD (NAASP-9080)

Side-A

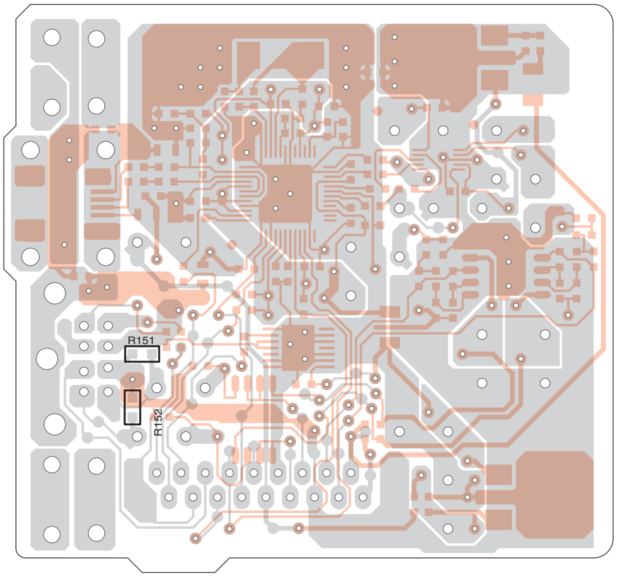

P202B
C4294
D4292
C4293
D4291
R4295
R4293
R4253
C4292
C4291
Q4292
Q4291
R4296
C4231
C4227
C4229
C4205
R4205
Q4202
R4206
C4206
R4294
C4296
C4295
C4228
C4230
R4254
C4234
C4232
C4207
R4207
R4208
C4208
C4298
25
C4297
41
C4214
C4213
R4211
R4212
C4210
R4216
R4214
Q4203
C4212
Q4204
R4255
R4256
C4241
C4242
C4233
R4210
R4209
C4209
R4292
R4291
R4213
R4215
C4211
C4236
C4235
Q4201
C4201
R4201
C4237
C4238
65
C4203
R4203
R4204
C4204
NCASP-9080
25139080
C4240
C4239
C4202
R4202
P4032B
P4033B

U30 XM PC BOARD (NARF-9077)

Side-A


NCRF-9077
25139077
Q102
C111
R145
R144
X101
C113
C114
R111
R112
R118
R119
C125
R120
L105
R121
C126
R122
C127
R123
C123
L106
C140
C112
E102
C106
C109
R106
L102
C105
R126
R124
C132
R128
R132
C130
C104
R142
R143
P122
C122
Q101
C129
C120
C102
C101
Q103
R117
R109
R108
C124
C116
C128
C117
C110
C115
R115
R114
Q105
R125
R127
R133
R129
R131
C133
C131
C136
C135
R105
R102
R103
R104
L101
C107
C108
R146
L104
R113
R110
R141
R150
L103
R137
Q107
C139
R101
R107
R135
C137
P121
C118
P102A
Q106
R136
C138
E101
Q104
C119
C121
R116

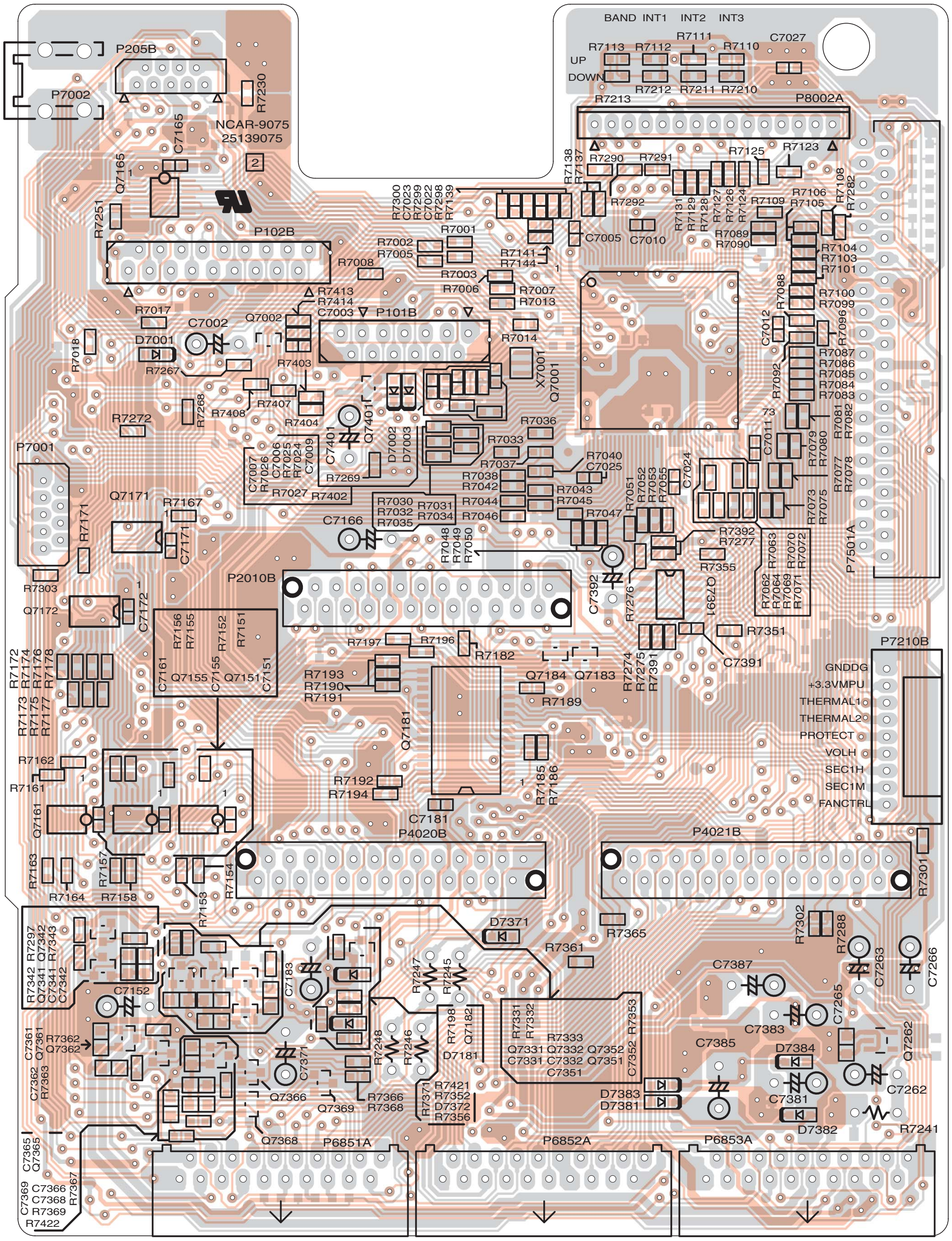
Side-B



PRINTED CIRCUIT BOARD VIEWS-19

U28 MICROPROCESSOR PC BOARD (NAAR-9075)

Side-A

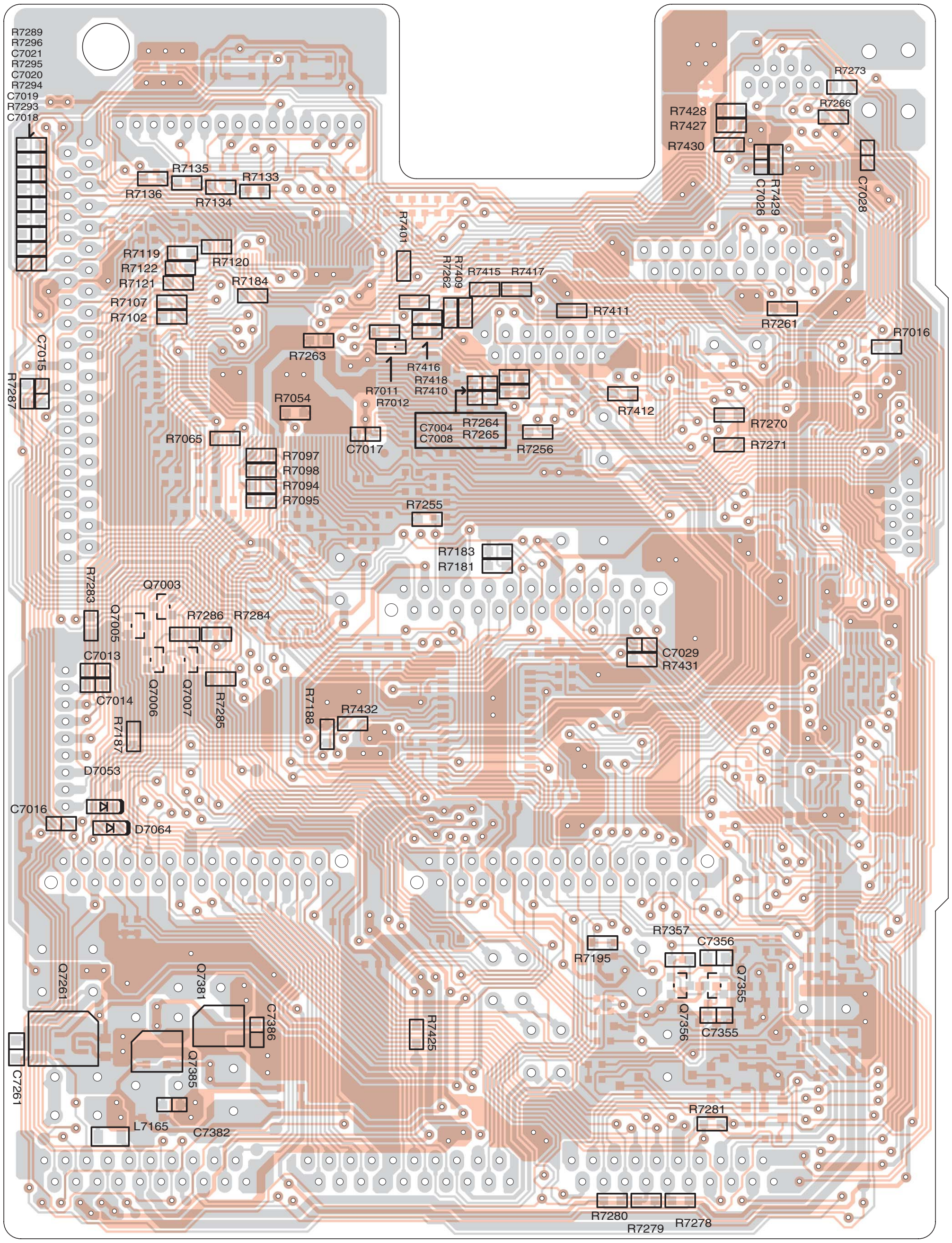


NCAR-9075
25139075
P205B
P7002
P102B
P101B
P2010B
P4020B
P4021B
P8002A
P7501A
P7210B
P7001
P6851A
P6852A
P6853A
BAND
INT1
INT2
INT3
UP
DOWN
GNDDG
+3.3VMPU
THERMAL1
THERMAL2
PROTECT
VOLH
SEC1H
SEC1M
FANCTRL
X7001
Q7001

PRINTED CIRCUIT BOARD VIEWS-20

U28 MICROPROCESSOR PC BOARD (NAAR-9075)

Side-B


R7289
R7296
C7021
R7295
C7020
R7294
C7019
R7293
C7018
R7135
R7133
R7136
R7134
R7119
R7122
R7121
R7120
R7184
R7107
R7102
C7015
R7287
R7401
R7262
R7409
R7415
R7417
R7411
R7263
R7416
R7418
R7410
R7011
R7012
R7054
C7004
C7008
R7264
R7265
C7017
R7256
R7412
R7065
R7097
R7098
R7094
R7095
R7255
R7183
R7181
R7428
R7427
R7430
C7026
R7429
C7028
R7273
R7266
R7261
R7016
R7270
R7271
R7283
Q7003
Q7005
R7286
R7284
C7013
Q7006
Q7007
R7285
C7014
R7187
R7188
R7432
C7029
R7431
D7053
C7016
D7064
R7357
C7356
R7195
Q7355
Q7356
C7355
Q7261
Q7381
C7386
R7425
C7261
Q7385
L7165
C7382
R7281
R7280
R7279
R7278

1
2
3
4
5

PRINTED CIRCUIT BOARD VIEWS-21

U33 DISPLAY PC BOARD (NADIS-9085)

Component side

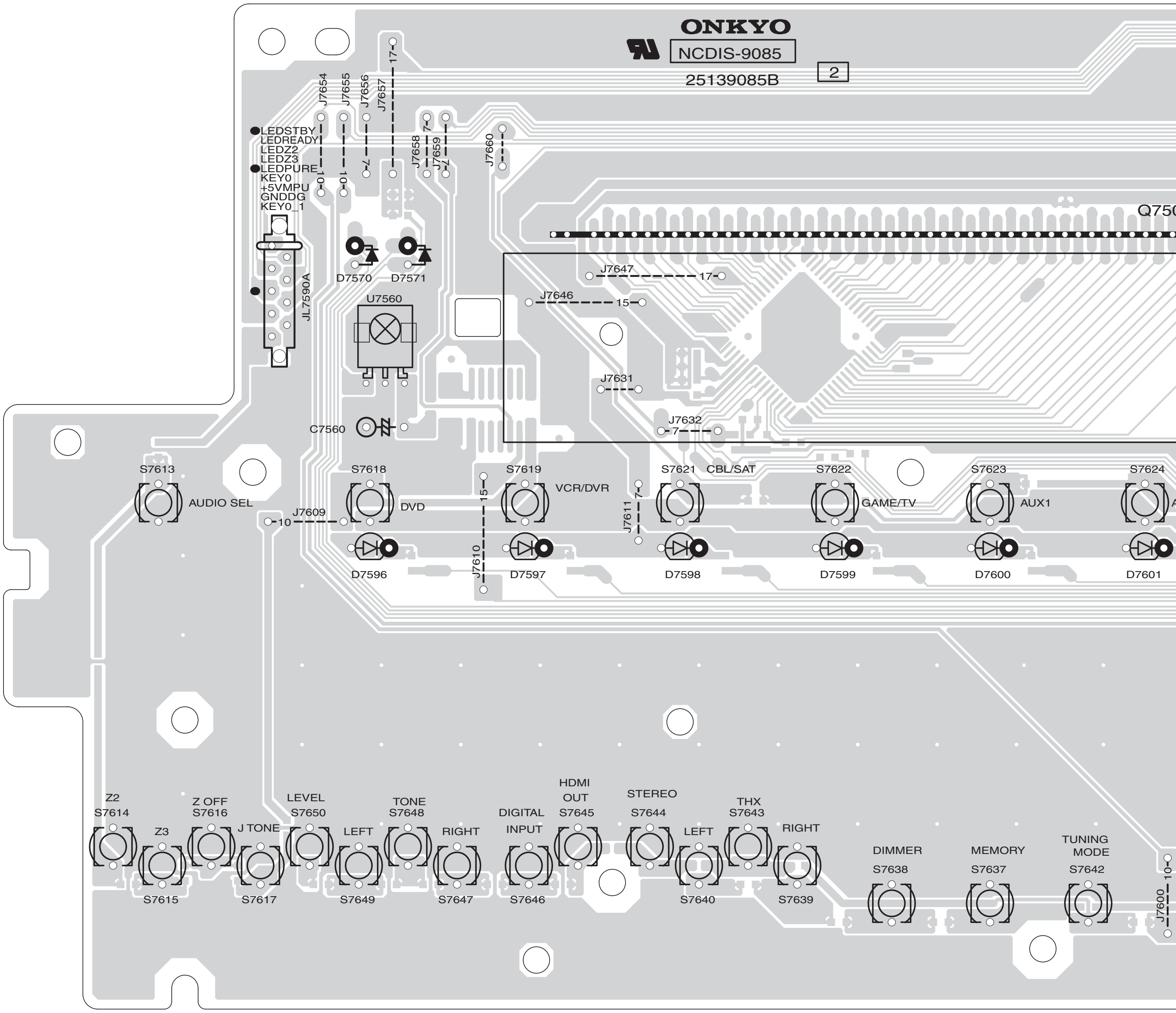
1

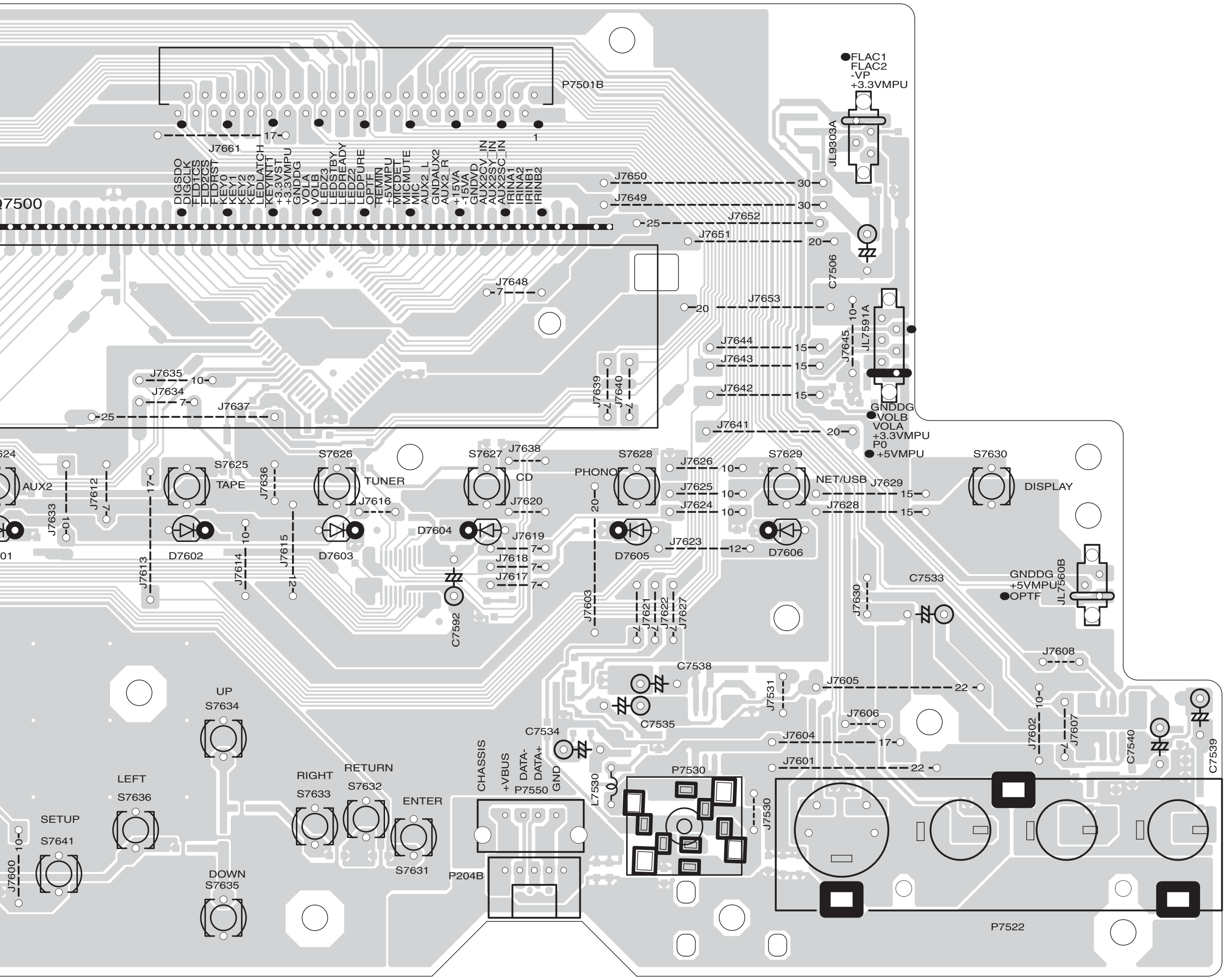
2

3

4

5

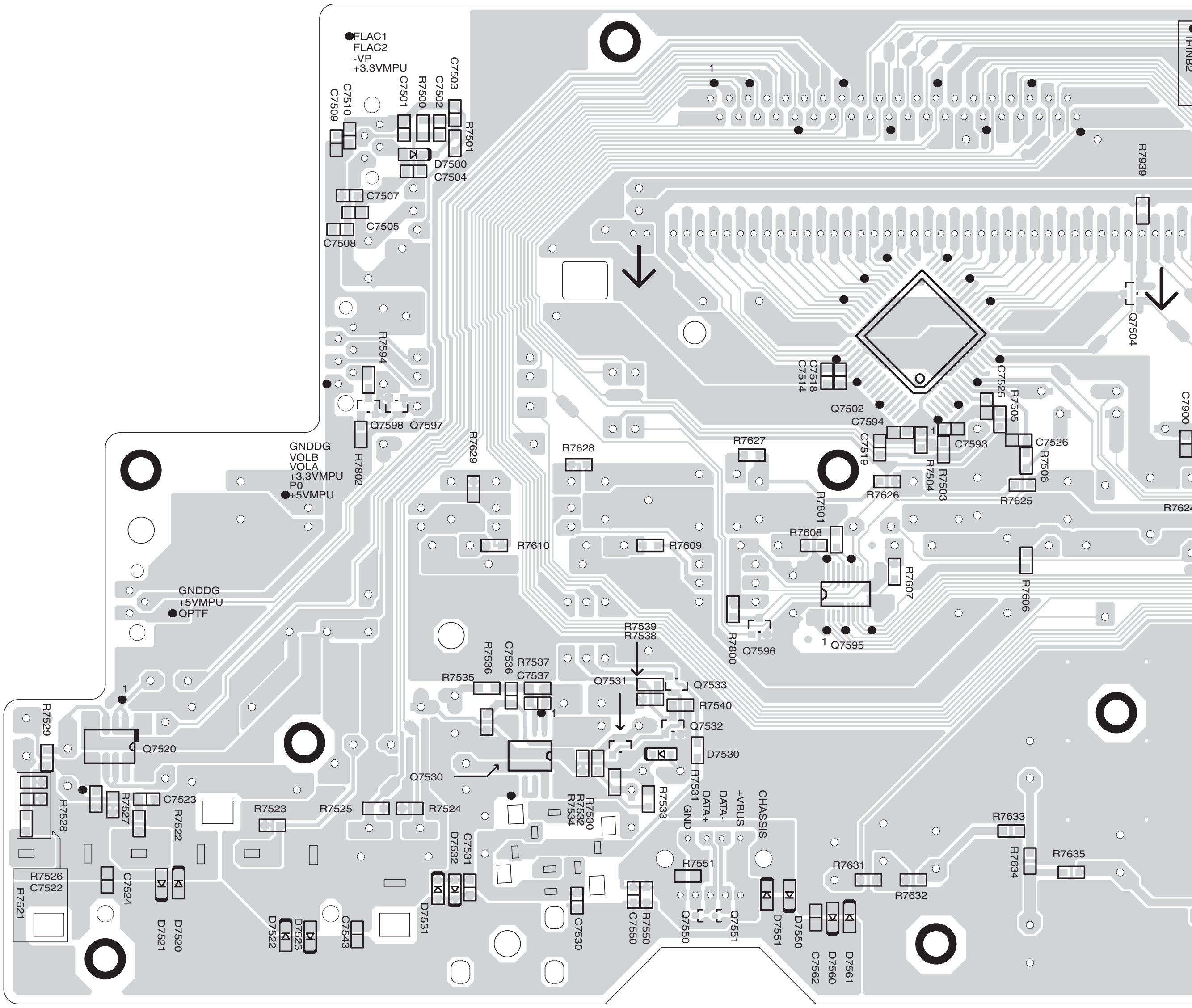

ONKYO
NCDIS-9085
25139085B
2
J7654
J7655
J7656
J7657
17
J7658
J7659
7
J7660
10
LEDSTBY
LEDREADY
LEDZ2
LEDZ3
LEDPURE
KEY0
+5VMPU
GNDDG
KEY0_1
JL7590A
D7570
D7571
U7560
Q750
J7647
J7646
15
J7631
J7632
C7560
S7613
AUDIO SEL
S7618
DVD
J7609
S7619
VCR/DVR
J7610
J7611
S7621
CBL/SAT
S7622
GAME/TV
S7623
AUX1
S7624
D7596
D7597
D7598
D7599
D7600
D7601
Z2
S7614
Z3
S7615
Z OFF
S7616
J TONE
S7617
LEVEL
S7650
LEFT
S7649
TONE
S7648
RIGHT
S7647
DIGITAL
INPUT
S7646
HDMI
OUT
S7645
STEREO
S7644
LEFT
S7640
THX
S7643
RIGHT
S7639
DIMMER
S7638
MEMORY
S7637
TUNING
MODE
S7642
J7600

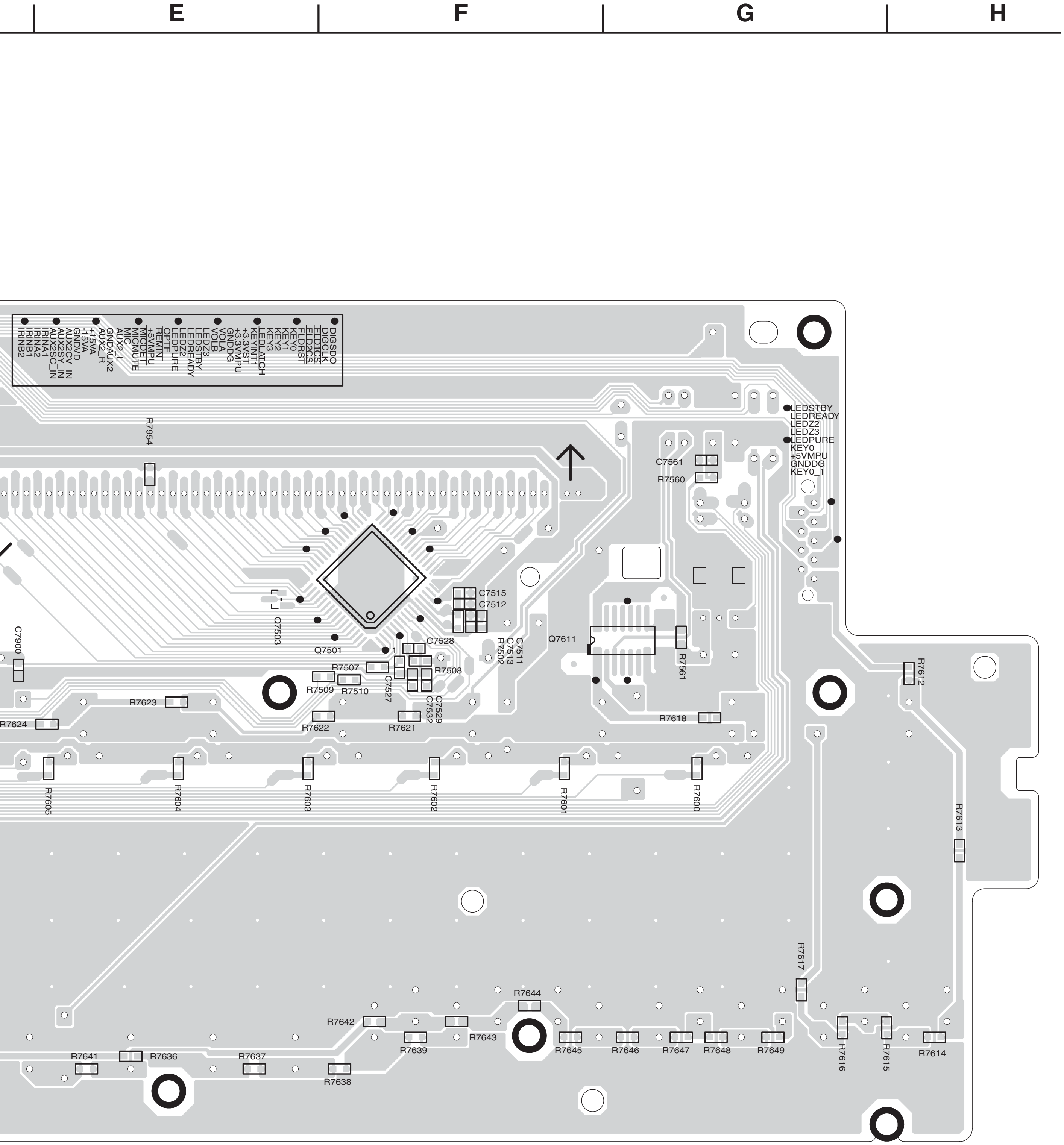

P7501B
J7661
17
1
DIGSDO
DIGCLK
FLD1CS
FLD2CS
FLDRST
KEY0
KEY1
KEY2
KEY3
LEDLATCH
KEYINT1
+3.3VST
+3.3VMPU
GNDDG
VOLA
VOLB
LEDZ3
LEDSTBY
LEDREADY
LEDZ2
LEDPURE
OPTF
REMIN
+5VMPU
MICDET
MICMUTE
MIC
AUX2_L
GNDAUX2
AUX2_R
+15VA
-15VA
GNDVD
AUX2CV_IN
AUX2SY_IN
AUX2SC_IN
IRINA1
IRINA2
IRINB1
IRINB2
Q7500
FLAC1
FLAC2
-VP
+3.3VMPU
JL9303A
J7650
30
J7649
30
J7652
25
J7651
20
C7506
J7648
7
J7653
20
J7645
10
JL7591A
J7644
15
J7643
15
J7642
15
J7635
10
J7634
7
J7637
25
J7639
7
J7640
7
J7641
20
GNDDG
VOLB
VOLA
+3.3VMPU
P0
+5VMPU
S7625
TAPE
S7626
TUNER
S7627
CD
J7638
S7628
PHONO
S7629
NET/USB
S7630
DISPLAY
AUX2
J7612
7
J7633
10
17
J7636
J7616
J7620
20
J7626
10
J7625
10
J7624
10
J7629
15
J7628
15
D7602
D7603
D7604
D7605
D7606
J7619
7
J7618
7
J7617
7
J7623
12
J7613
J7614
10
J7615
12
C7592
J7603
J7621
7
J7622
7
J7627
7
J7630
C7533
GNDDG
+5VMPU
OPTF
JL7560B
C7538
C7535
J7608
J7605
22
J7531
J7606
J7604
17
J7601
22
J7602
10
J7607
7
C7540
C7539
UP
S7634
LEFT
S7636
RIGHT
S7633
RETURN
S7632
ENTER
S7631
SETUP
S7641
10
J7600
DOWN
S7635
C7534
CHASSIS
+VBUS
DATA-
DATA+
GND
P7550
P204B
L7530
P7530
J7530
P7522

PRINTED CIRCUIT BOARD VIEWS-22

U33 DISPLAY PC BOARD (NADIS-9085)

Soldering side

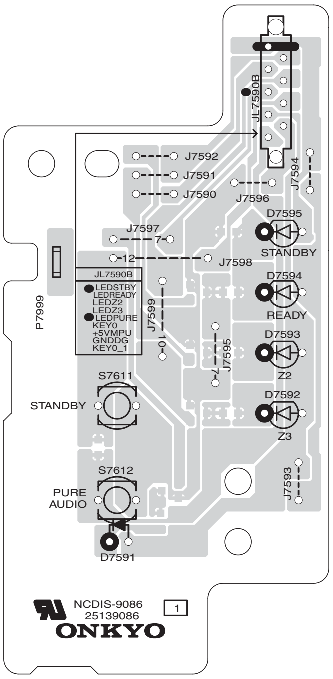

FLAC1
FLAC2
-VP
+3.3VMPU
C7503
C7502
R7500
C7501
C7510
C7509
R7501
D7500
C7504
C7507
C7505
C7508
R7939
Q7504
R7594
Q7598
Q7597
R7802
GNDDG
VOLB
VOLA
+3.3VMPU
P0
+5VMPU
R7629
R7628
R7627
C7518
C7514
Q7502
C7594
C7519
C7525
R7505
C7593
C7526
R7506
R7504
R7503
R7626
R7625
C7900
R7624
R7801
R7608
R7610
R7609
R7607
R7606
GNDDG
+5VMPU
OPTF
R7539
R7538
R7800
Q7596
Q7595
R7536
C7536
R7537
C7537
R7535
Q7531
Q7533
R7540
Q7532
R7529
Q7520
D7530
Q7530
R7531
R7533
R7530
R7532
R7534
GND
DATA+
DATA-
+VBUS
CHASSIS
R7528
R7527
C7523
R7522
R7523
R7525
R7524
R7633
R7634
R7635
R7631
R7632
R7551
R7526
C7522
R7521
C7524
D7521
D7520
D7522
D7523
C7543
C7531
D7532
D7531
C7530
C7550
R7550
Q7550
Q7551
D7551
D7550
C7562
D7560
D7561
1


E
F
G
H
DIGSDO
DIGCLK
FLD1CS
FLD2CS
FLDRST
KEY0
KEY1
KEY2
KEY3
LEDLATCH
KEYINT1
+3.3VST
+3.3VMPU
GNDDG
VOLA
VOLB
LEDZ3
LEDSTBY
LEDREADY
LEDZ2
LEDPURE
OPTF
REMIN
+5VMPU
MICDET
MICMUTE
MIC
AUX2_L
GNDAUX2
AUX2_R
+15VA
-15VA
GNDVD
AUX2CV_IN
AUX2SY_IN
AUX2SC_IN
IRINA1
IRINA2
IRINB1
IRINB2
R7954
LEDSTBY
LEDREADY
LEDZ2
LEDZ3
LEDPURE
KEY0
+5VMPU
GNDDG
KEY0_1
C7561
R7560
C7515
C7512
Q7503
Q7501
1
C7528
C7511
C7513
R7502
Q7611
R7561
C7900
R7507
R7508
R7509
R7510
C7527
C7529
C7532
R7623
R7624
R7622
R7621
R7618
R7612
R7605
R7604
R7603
R7602
R7601
R7600
R7613
R7617
R7644
R7642
R7643
R7639
R7645
R7646
R7647
R7648
R7649
R7616
R7615
R7614
R7641
R7636
R7637
R7638

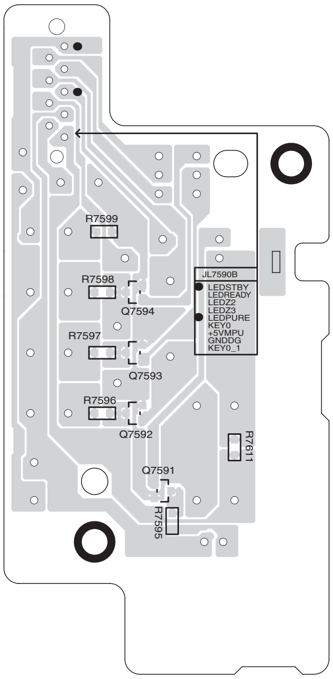
PRINTED CIRCUIT BOARD VIEWS-23

U34 DISPLAY PC BOARD (NADIS-9086)

Component side

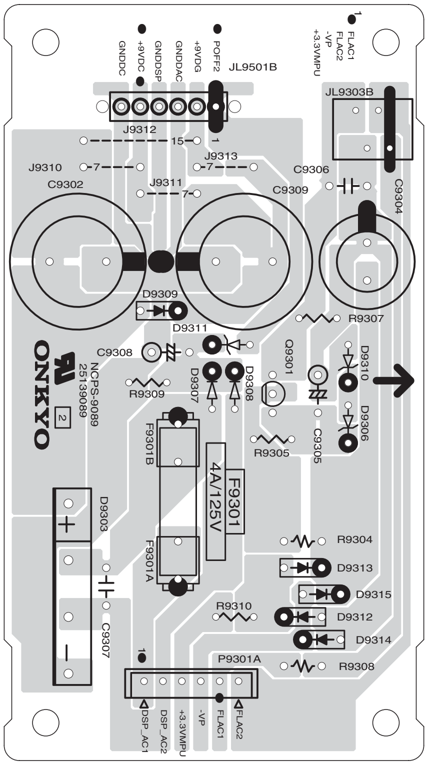

JL7590B
J7592
J7591
J7590
J7596
J7594
D7595
J7597
STANDBY
J7598
JL7590B
LEDSTBY
LEDREADY
LEDZ2
LEDZ3
LEDPURE
KEY0
+5VMPU
GNDDG
KEY0_1
P7699
J7599
D7594
READY
J7595
D7593
Z2
S7611
STANDBY
D7592
Z3
S7612
PURE AUDIO
J7593
D7591
NCDIS-9086
25139086
1
ONKYO

Soldering side

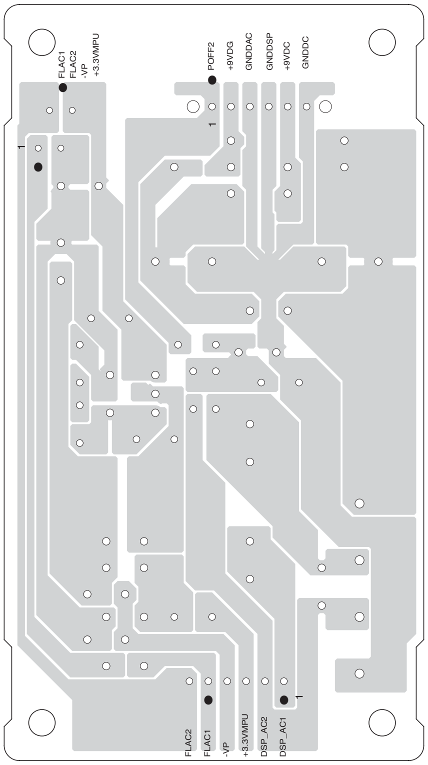

R7599
R7598
Q7594
JL7590B
LEDSTBY
LEDREADY
LEDZ2
LEDZ3
LEDPURE
KEY0
+5VMPU
GNDDG
KEY0_1
R7597
Q7593
R7596
Q7592
R7611
Q7591
R7595

U37 POWER SUPPLY PC BOARD (NAPS-9089)

Component side


GNDDC
+9VDC
GNDDSP
GNDDAC
+9VDG
POFF2
FLAC1
FLAC2
-VP
+3.3VMPU
1
JL9501B
JL9303B
J9312
15
J9310
7
J9313
C9306
C9302
J9311
C9309
C9304
D9309
R9307
D9311
C9308
Q9301
D9310
D9307
D9308
R9309
NCPS-9089
25139089
2
ONKYO
F9301B
D9306
C9305
R9305
F9301
4A/125V
D9303
R9304
F9301A
D9313
D9315
R9310
D9312
C9307
D9314
P9301A
R9308
DSP_AC1
DSP_AC2
+3.3VMPU
-VP
FLAC1
FLAC2

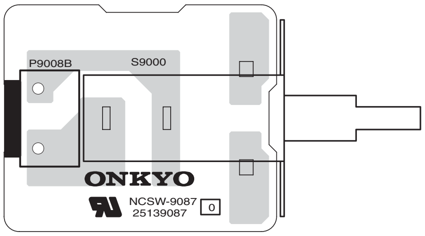
Soldering side


FLAC1
FLAC2
-VP
+3.3VMPU
POFF2
+9VDG
GNDDAC
GNDDSP
+9VDC
GNDDC
1
FLAC2
FLAC1
-VP
+3.3VMPU
DSP_AC2
DSP_AC1

PRINTED CIRCUIT BOARD VIEWS-24

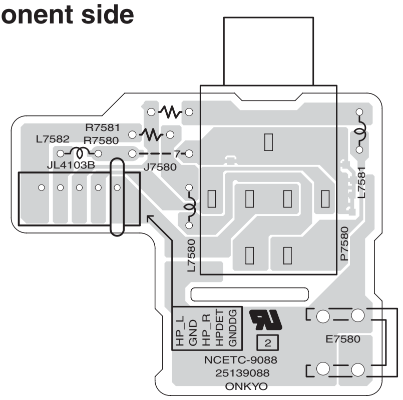
U35 SWITCH PC BOARD (NASW-9087)

Component side

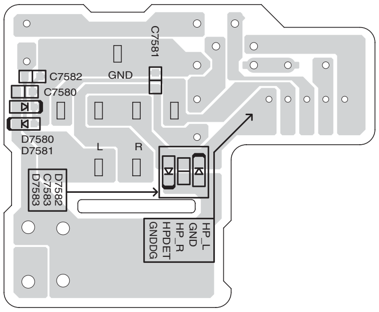

P9008B
S9000
ONKYO
NCSW-9087
25139087
0

U36 HEADPHONE PC BOARD (NAETC-9088)

Component side

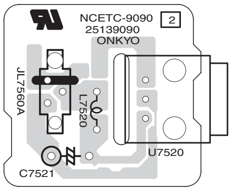

R7581
L7582
R7580
JL4103B
J7580
L7581
L7580
P7580
HP_L
GND
HP_R
HPDET
GNDDG
2
E7580
NCETC-9088
25139088
ONKYO

Soldering side

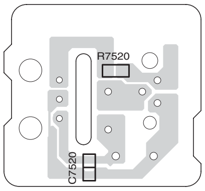

C7581
C7582
GND
C7580
D7580
D7581
L
R
D7582
C7583
D7583
HP_L
GND
HP_R
HPDET
GNDDG

U38 FRONT OPT PC BOARD (NAETC-9090)

Component side

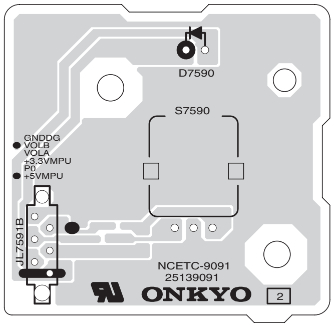

NCETC-9090
2
25139090
ONKYO
JL7560A
L7520
U7520
C7521

Soldering side

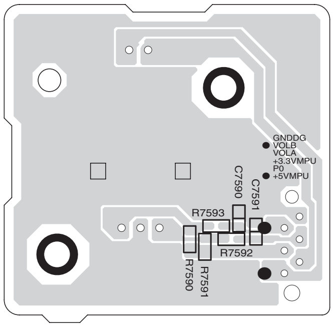

R7520
C7520

U39 VOLUME PC BOARD (NAETC-9091)

Component side


D7590
S7590
GNDDG
VOLB
VOLA
+3.3VMPU
P0
+5VMPU
JL7591B
NCETC-9091
25139091
ONKYO
2

Soldering side


GNDDG
VOLB
VOLA
+3.3VMPU
P0
+5VMPU
C7590
C7591
R7593
R7592
R7590
R7591

A B C D

PRINTED CIRCUIT BOARD VIEWS-25

U42 HDMI PC BOARD (NAHDM-9107)

Side-A

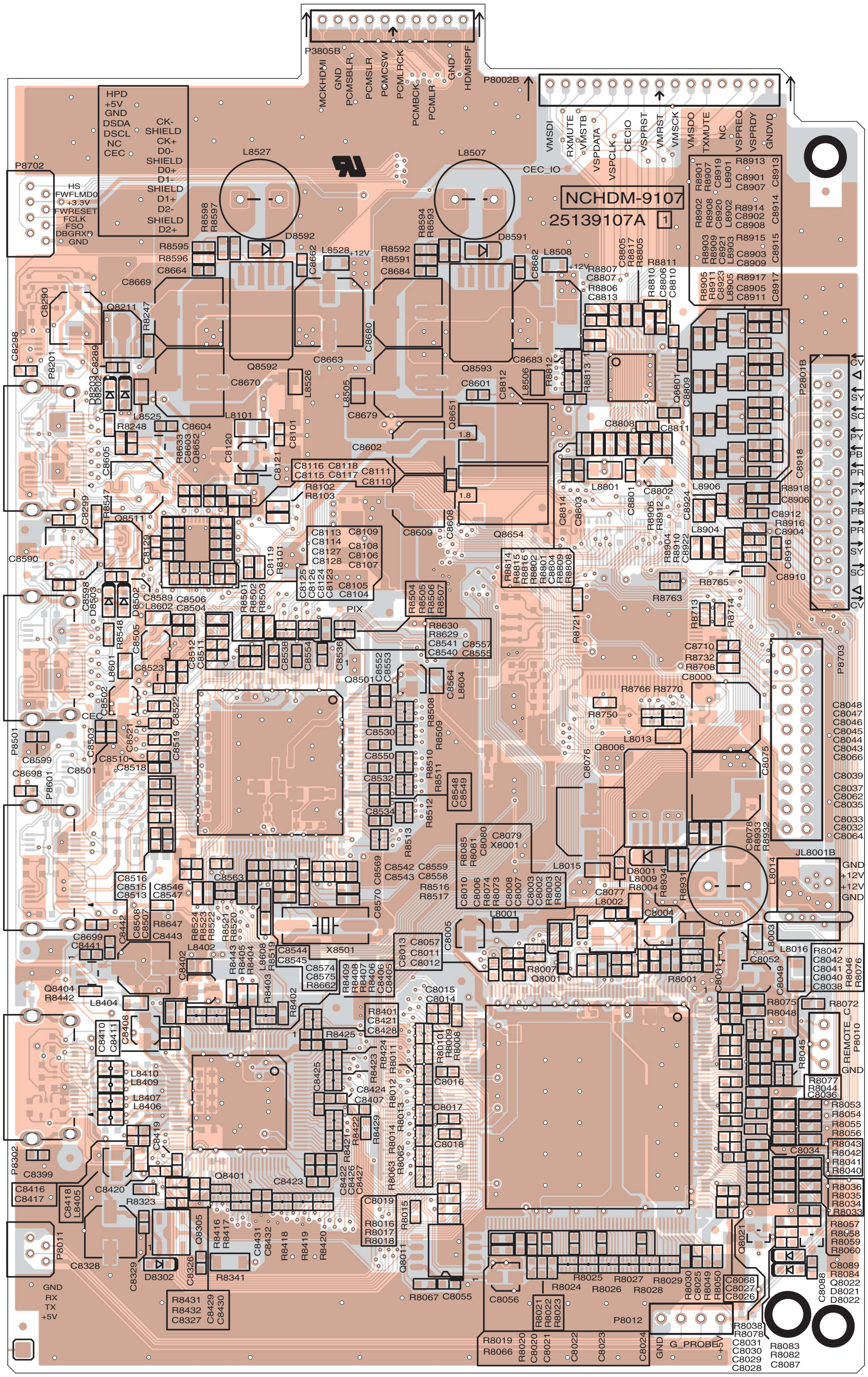
1

2

3

4

5


P3805B
MCKHDMI
GND
PCMSBLR
PCMSLR
PCMCSW
PCMLRCK
PCMBCK
PCMLR
GND
HDMISPF
P8002B
VMSDI
RXMUTE
VMSTB
VSPDATA
VSPCLK
CECIO
VSPRST
VMRST
VMSCK
VMSDO
TXMUTE
NC
VSPREQ
VSPRDY
GNDVD
HPD
+5V
GND
DSDA
DSCL
NC
CEC
CK-
SHIELD
CK+
D0-
SHIELD
D0+
D1-
SHIELD
D1+
D2-
SHIELD
D2+
P8702
HS
FWFLMD0
+3.3V
FWRESET
FCLK
FSO
DBGRXD
GND
L8527
L8507
CEC_IO
NCHDM-9107
25139107A
D8592
D8591
L8528
+12V
L8508
Q8592
Q8593
Q8211
Q8511
Q8654
Q8601
Q8006
Q8001
Q8401
Q8404
Q8305
X8001
X8501
L8101
L8801
L8906
L8904
L8013
L8015
L8001
L8002
L8009
L8404
L8405
L8410
L8409
L8407
L8406
L8601
L8602
L8525
L8526
L8505
L8604
L8016
L8003
L8014
D8001
D8302
D8503
D8502
D8203
D8202
P2801B
CV
SY
SC
PY
PB
PR
P8703
P8501
P8601
P8302
P8011
P8012
P8010
P8201
JL8001B
GND
+12V
+12V
GND
REMOTE
GND
RX
TX
+5V
G_PROBE
PIX
CEC
1.8
R8913
R8901
R8907
C8919
L8901
C8901
C8907
R8914
C8902
C8908
R8915
C8903
C8909
R8917
C8905
C8911
C8913
C8914
C8915
C8917
R8807
C8807
R8806
C8813
R8811
C8805
R8817
R8805
R8810
C8806
C8810
C8808
C8811
C8802
C8801
C8809
C8812
C8814
C8803
C8918
C8906
C8912
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C8904
C8916
C8910
R8918
R8765
R8763
R8713
R8714
R8721
C8710
R8732
R8708
C8000
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R8750
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C8075
C8048
C8047
C8046
C8045
C8044
C8043
C8066
C8039
C8037
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C8035
C8033
C8032
C8064
C8078
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R8934
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C8077
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R8001
C8052
C8049
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C8041
C8040
C8038
R8046
R8076
R8075
R8048
R8072
R8045
R8077
R8044
C8036
R8053
R8054
R8055
R8056
R8043
R8042
R8041
R8040
C8034
R8036
R8035
R8034
R8033
R8057
R8058
R8059
R8060
C8089
R8084
Q8022
D8021
D8022
C8088
R8038
R8078
C8031
C8030
C8029
C8028
R8083
R8082
C8087
C8068
C8027
C8026
R8025
R8027
R8029
R8024
R8026
R8028
R8030
C8025
R8049
R8050
C8056
R8021
R8022
R8023
R8019
R8066
R8020
C8020
C8021
C8022
C8023
C8024
R8067
C8055
C8057
C8011
C8012
C8013
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C8016
C8017
C8018
C8019
R8016
R8017
R8018
R8015
R8010
R8009
R8008
R8011
R8012
R8013
R8014
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C8080
R8085
R8081
C8010
C8006
R8074
R8073
C8008
C8007
C8003
C8002
R8003
R8002
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C8543
C8558
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R8512
R8511
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R8509
R8508
C8548
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C8534
C8552
C8553
C8564
Q8501
R8630
R8629
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C8540
C8555
R8504
R8505
R8506
R8507
R8501
R8502
R8503
C8113
C8109
C8114
C8108
C8127
C8106
C8128
C8107
C8125
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C8124
C8123
C8105
C8104
C8116
C8118
C8115
C8117
C8111
C8110
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R8103
C8119
R8101
C8121
C8120
C8101
C8602
C8609
C8608
C8601
C8651
C8679
C8663
C8670
C8680
C8683
C8684
C8662
C8682
C8664
C8669
C8604
C8605
C8603
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R8596
R8597
R8598
R8591
R8592
R8593
R8594
R8248
R8247
C8290
C8298
C8289
C8299
R8547
C8590
C8598
C8589
C8506
C8504
R8548
C8505
C8523
C8512
C8511
C8538
C8554
C8536
C8502
C8503
C8521
C8510
C8518
C8519
C8522
C8599
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C8516
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C8513
C8546
C8547
C8563
C8508
C8507
R8647
C8443
C8699
C8441
C8442
R8524
R8523
R8522
R8521
R8520
R8519
R8402
R8403
R8443
R8405
R8404
R8608
C8544
C8545
C8574
C8575
R8662
R8409
R8408
R8407
R8406
C8405
C8406
R8401
C8421
C8428
R8425
C8425
R8423
R8424
C8424
C8407
R8429
R8421
C8422
C8426
C8427
C8423
R8442
C8408
C8410
C8411
C8402
C8419
C8420
C8416
C8417
C8418
C8399
R8323
C8328
C8329
C8326
R8416
R8417
C8431
C8432
R8418
R8419
R8420
R8341
R8431
R8432
C8327
C8429
C8430
R8802
R8801
C8804
R8809
R8808
R8814
R8815
R8816
R8803
C8924
R8906
R8912
R8904
R8910
C8922
R8902
R8908
R8903
R8909
R8905
R8911
C8920
C8921
C8923
L8902
L8903
L8905
C8006
C8001

A B C D

PRINTED CIRCUIT BOARD VIEWS-26

U42 HDMI PC BOARD (NAHDM-9107)

Side-B

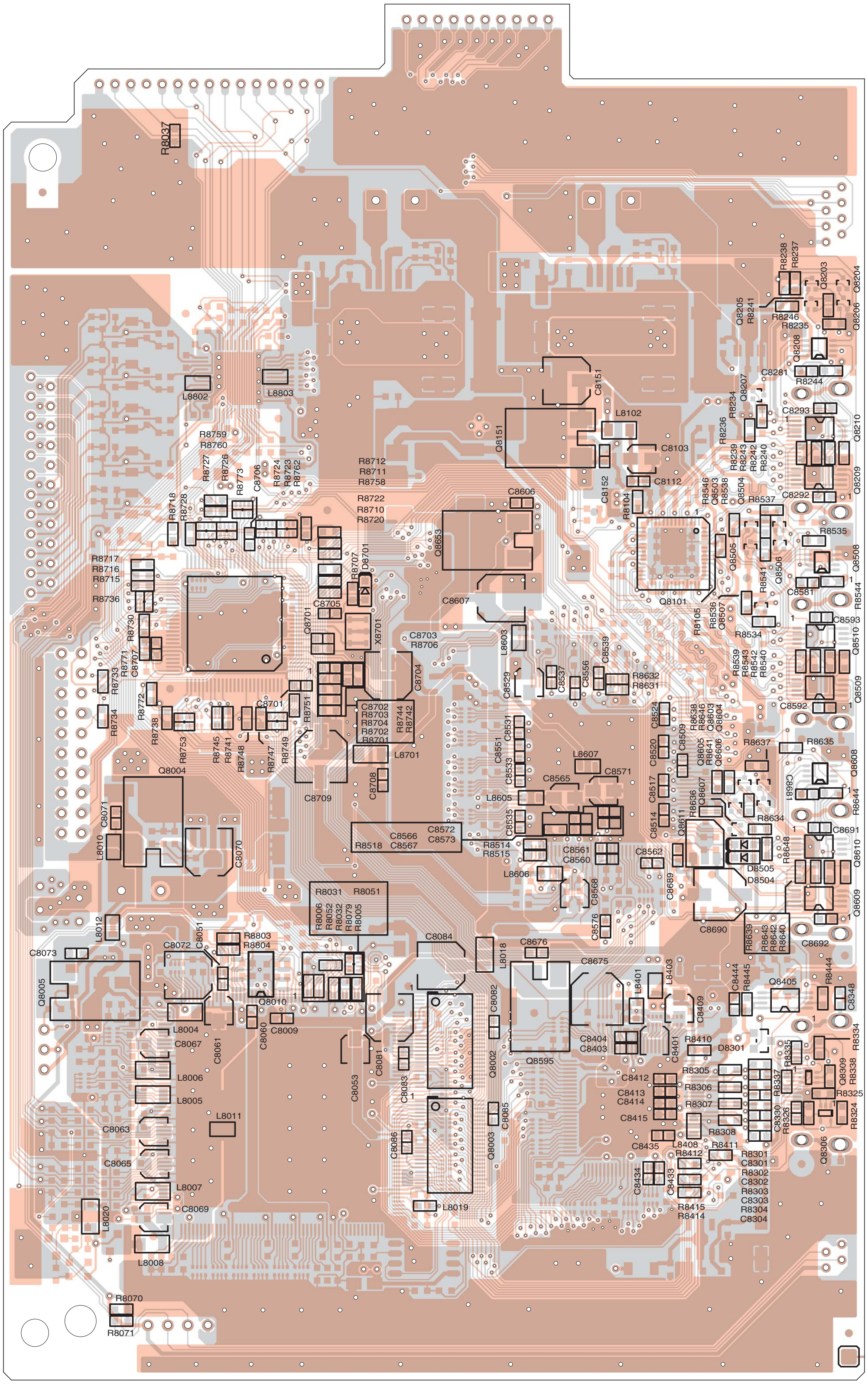
1

2

3

4

5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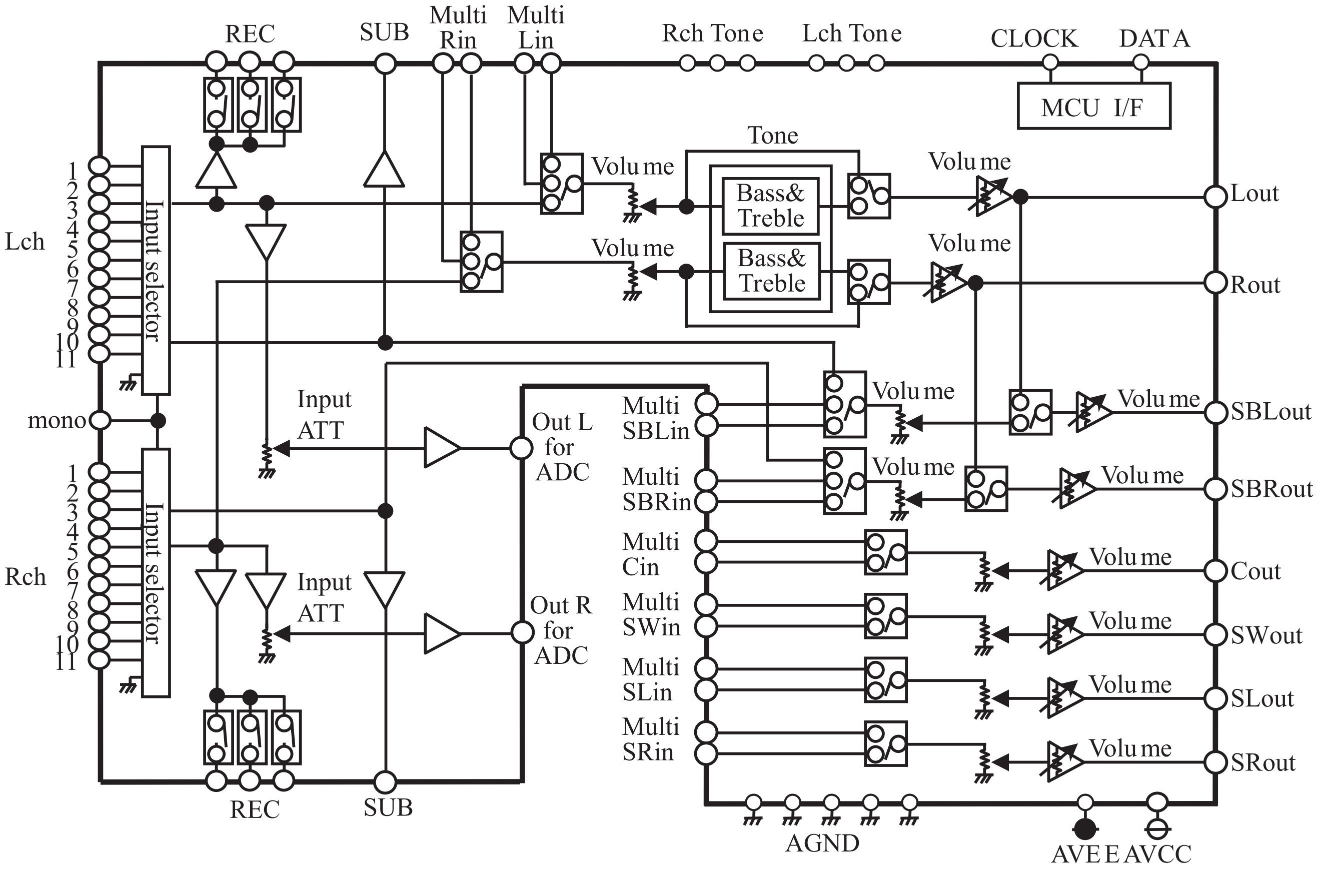
L8803
R8759
R8760
R8727
R8726
R8773
C8706
R8724
R8723
R8762
R8712
R8711
R8758
R8722
R8710
R8720
R8718
R8728
R8717
R8716
R8715
R8736
R8730
R8733
R8771
C8707
R8734
R8772
R8738
R8753
R8745
R8741
R8748
R8747
R8749
C8701
R8751
Q8701
X8701
C8705
R8707
D8701
C8703
R8706
C8704
C8702
R8703
R8704
R8702
R8701
R8744
R8742
L8701
C8709
C8708
Q8004
C8071
L8010
C8070
C8566
C8567
C8572
C8573
R8518
R8031
R8051
R8006
R8052
R8032
R8079
R8005
R8803
R8804
C8072
C8051
R8012
C8073
Q8005
Q8010
C8009
C8060
L8004
C8067
C8061
L8006
L8005
L8011
C8063
C8065
L8007
C8069
L8020
L8008
R8070
R8071
C8084
C8053
C8081
C8083
C8086
L8019
L8018
C8082
Q8002
C8085
Q8003
C8676
C8675
Q8595
C8151
L8102
Q8151
C8103
C8152
C8112
R8104
C8606
Q8653
C8607
Q8101
R8105
L8603
C8529
C8537
C8556
C8539
R8632
R8631
C8531
C8551
C8533
L8607
C8571
C8565
L8605
C8535
R8514
R8515
C8561
C8560
L8606
C8562
C8568
C8576
C8689
C8690
C8524
C8520
C8517
C8514
R8638
R8646
Q8603
Q8604
Q8605
R8641
Q8606
Q8602
R8636
Q8607
Q8611
R8637
R8635
C8691
Q8608
R8644
R8634
R8648
Q8610
D8505
D8504
R8639
R8643
R8642
R8640
C8692
Q8609
Q8205
R8241
R8238
R8237
Q8203
Q8204
R8246
R8235
Q8206
Q8208
C8281
R8244
R8234
Q8207
R8236
C8293
Q8210
R8239
R8243
R8242
R8240
Q8209
C8292
R8546
Q8503
R8538
Q8504
R8537
R8535
Q8505
R8541
Q8506
C8581
Q8508
R8536
Q8507
R8544
R8534
C8593
Q8510
R8539
R8543
R8542
R8540
Q8509
C8592
L8403
C8401
C8409
C8444
R8445
Q8405
R8444
C8348
C8404
C8403
C8402
R8410
D8301
C8412
C8413
C8414
C8415
C8435
L8408
R8411
R8412
C8434
C8433
R8305
R8306
R8307
R8308
R8301
C8301
R8302
C8302
R8303
C8303
R8304
C8304
R8415
R8414
R8335
R8337
R8336
R8330
R8326
R8334
Q8309
R8338
R8325
R8324
Q8306

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -1

Q4204: R2S15211FP (8 ch Electronic Volume and 11 Input Selector and Tone Control)

SYSTEM BLOCK DIAGRAM

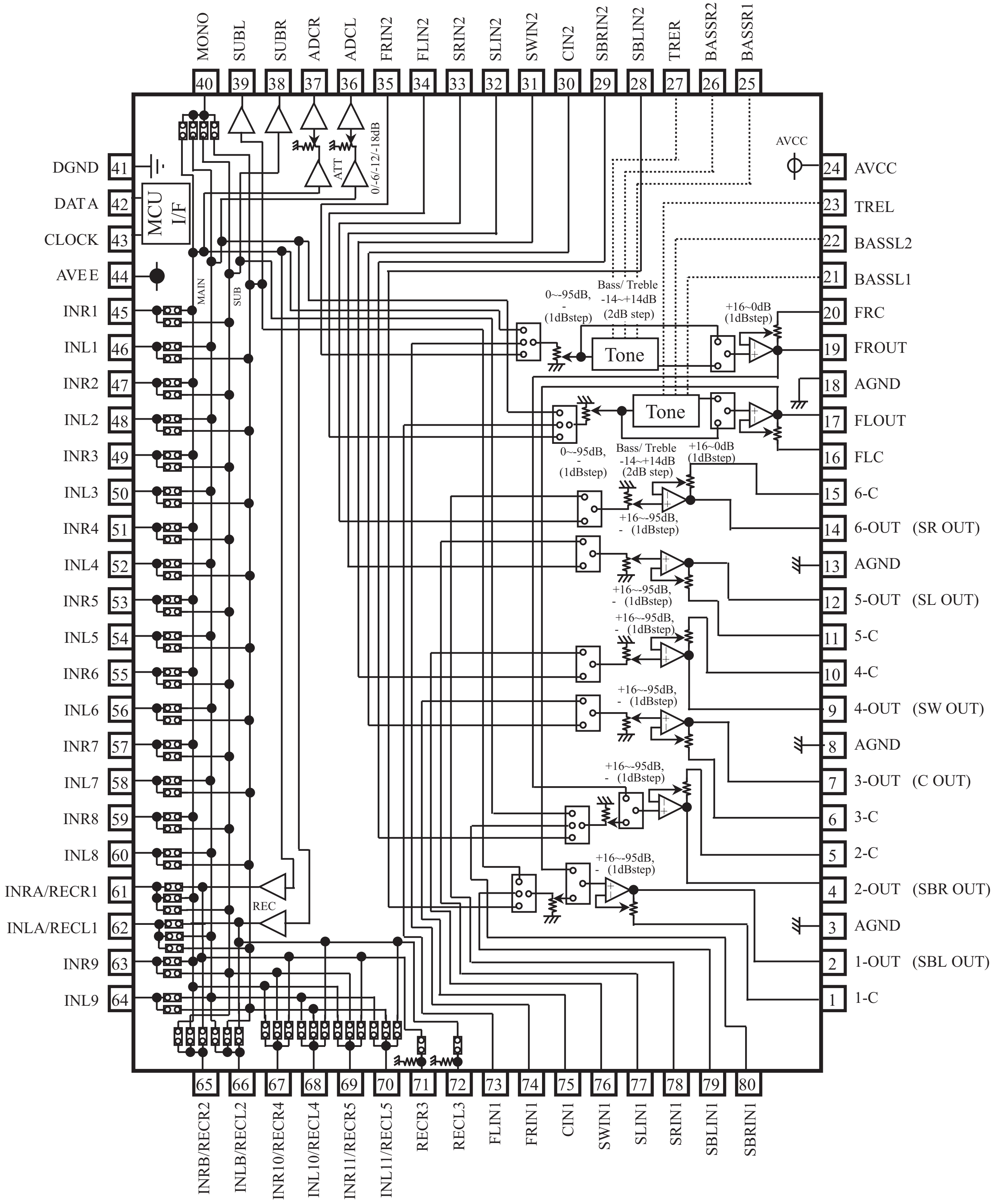


REC
SUB
Multi Rin
Multi Lin
Rch Tone
Lch Tone
CLOCK
DATA
MCU I/F
Tone
Volume
Bass& Treble
Lout
Rout
Lch
1 2 3 4 5 6 7 8 9 10 11
Input selector
mono
Rch
Input ATT
Out L for ADC
Out R for ADC
Multi SBLin
Multi SBRin
Multi Cin
Multi SWin
Multi SLin
Multi SRin
SBLout
SBRout
Cout
SWout
SLout
SRout
AGND
AVEE
AVCC

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -2

Q4204: R2S15211FP (8 ch Electronic Volume and 11 Input Selector and Tone Control)

BLOCK DIAGRAM AND PIN CONFIGURATION


MONO 40
SUBL 39
SUBR 38
ADCR 37
ADCL 36
FRIN2 35
FLIN2 34
SRIN2 33
SLIN2 32
SWIN2 31
CIN2 30
SBRIN2 29
SBLIN2 28
TRER 27
BASSR2 26
BASSR1 25
0/-6/-12/-18dB
ATT
AVCC
DGND 41
DATA 42
CLOCK 43
AVEE 44
INR1 45
INL1 46
INR2 47
INL2 48
INR3 49
INL3 50
INR4 51
INL4 52
INR5 53
INL5 54
INR6 55
INL6 56
INR7 57
INL7 58
INR8 59
INL8 60
INRA/RECR1 61
INLA/RECL1 62
INR9 63
INL9 64
MCU I/F
MAIN
SUB
REC
0~-95dB, - (1dBstep)
Bass/ Treble -14~+14dB (2dB step)
Tone
+16~0dB (1dBstep)
Tone
0~-95dB, - (1dBstep)
Bass/ Treble -14~+14dB (2dB step)
+16~0dB (1dBstep)
+16~-95dB, - (1dBstep)
+16~-95dB, - (1dBstep)
+16~-95dB, - (1dBstep)
+16~-95dB, - (1dBstep)
+16~-95dB, - (1dBstep)
+16~-95dB, - (1dBstep)
24 AVCC
23 TREL
22 BASSL2
21 BASSL1
20 FRC
19 FROUT
18 AGND
17 FLOUT
16 FLC
15 6-C
14 6-OUT (SR OUT)
13 AGND
12 5-OUT (SL OUT)
11 5-C
10 4-C
9 4-OUT (SW OUT)
8 AGND
7 3-OUT (C OUT)
6 3-C
5 2-C
4 2-OUT (SBR OUT)
3 AGND
2 1-OUT (SBL OUT)
1 1-C
65 INRB/RECR2
66 INLB/RECL2
67 INR10/RECR4
68 INL10/RECL4
69 INR11/RECR5
70 INL11/RECL5
71 RECR3
72 RECL3
73 FLIN1
74 FRIN1
75 CIN1
76 SWIN1
77 SLIN1
78 SRIN1
79 SBLIN1
80 SBRIN1

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -3

Q4204: R2S15211FP (8 ch Electronic Volume and 11 Input Selector and Tone Control)

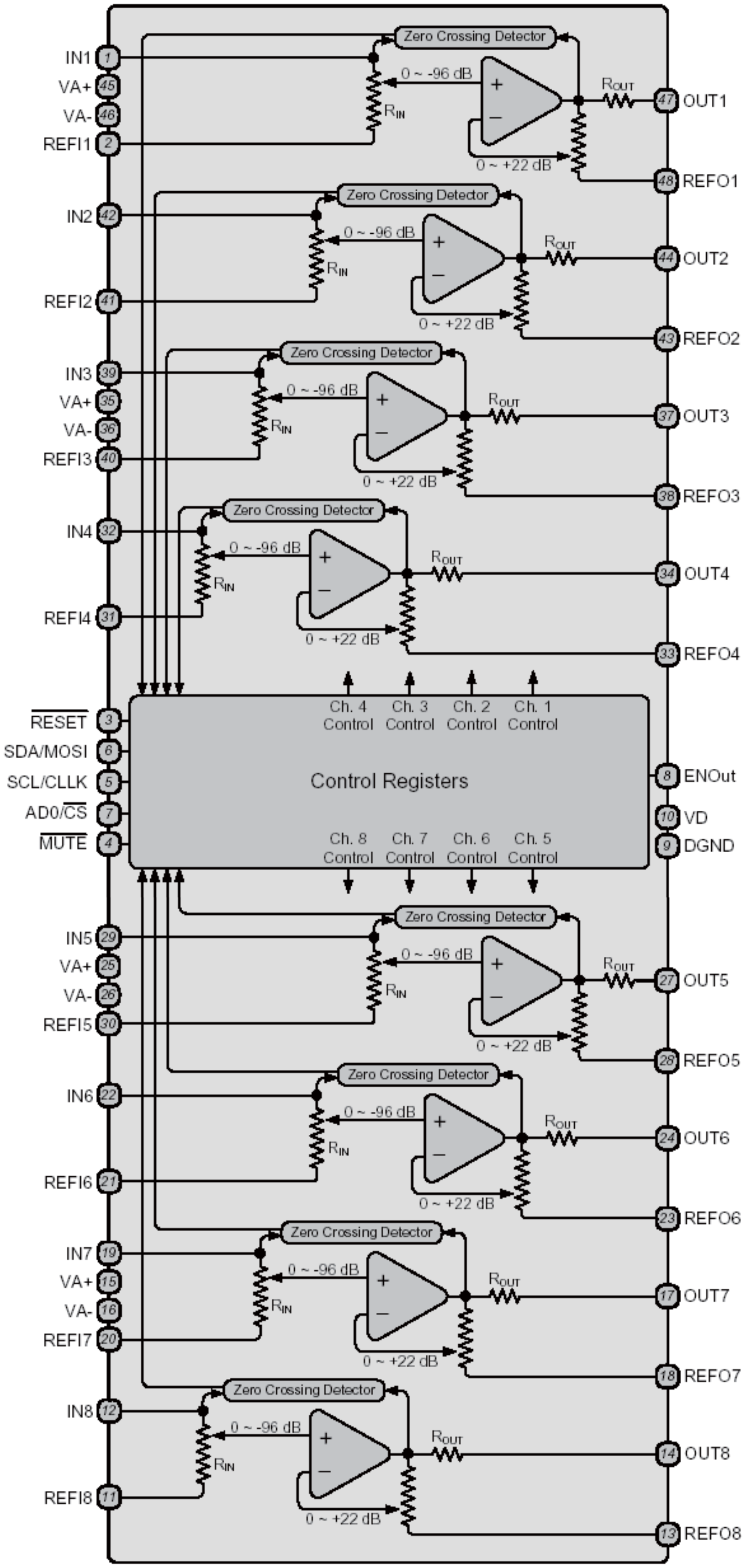
TERMINAL DESCRIPTION

PIN No.	Name	Function
19,17, 14,12, 9,7, 4,2	FROUT,FLOUT, 6-OUT,5-OUT, 4-OUT, 3-OUT, 2-OUT,1-OUT	Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel
20,16, 15,11, 10,6, 5,1	FRC,FLC, 6-C,5-C, 4-C,3-C, 2-C,1-C	Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume
3,8, 13,18	AGND	Analog ground of internal circuit
23,27	TREL, TRER	Frequency characteristic setting pin of L/R channel tone control (Treble)
21,22, 25,26	BASSL1,BASSL2 BASSR1,BASSR2	Frequency characteristic setting pin of L/R channel tone control (Bass)
24	AVCC	Positive power supply to internal circuit
35,34, 33,32, 31,30, 29,28	FRIN2, FLIN2, SRN2,SLIN2, SWIN2,CIN2, SBRIN2,SBLIN2	Input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
73,74, 75,76, 77,78, 79,80	FLIN1, FRIN1, CIN1,SWIN1, SLIN1,SRIN1, SBLIN1,SBRIN1	
41	DGND	Digital ground of internal circuit
42	DATA	Input pin of control data
43	CLOCK	Input pin of control clock
44	AVEE	Negative power supply to internal circuit
46,48,50, 52,54,56, 58,60,64	INL1,INL2, INL3, INL4,INL5,INL6, INL7,INL8,INL9	Input pin of L/R channel (Input Selector)
45,47,49, 51,53,55, 57,59,63	INR1,INR2, INR3, INR4,INR5,INR6, INR7,INR8,INR9	
40	MONO	Input pin of monaural (Input Selector)
38,39	SUBL,SUBR	Output pin for L/R channel SUB Output
36,37	ADCL, ADCR	Output pin for L/R channel ADC
72	RECL3	Output pin for L/R channel REC Output
71	RECR3	
61,62, 65,66, 67,68, 69,70	INRA/RECR1,INLA/RECL1, INRB/RECR2,INLB/RECL2, INR10/RECR4,INL10/RECL4, INR11/RECR5,INL11/RECL5	Input pin of L/R channel (Input Selector)/ Output pin for L/R channel REC Output

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -4

Q4405: CS3318-CQZR (8 Channel Analog Volume Control)

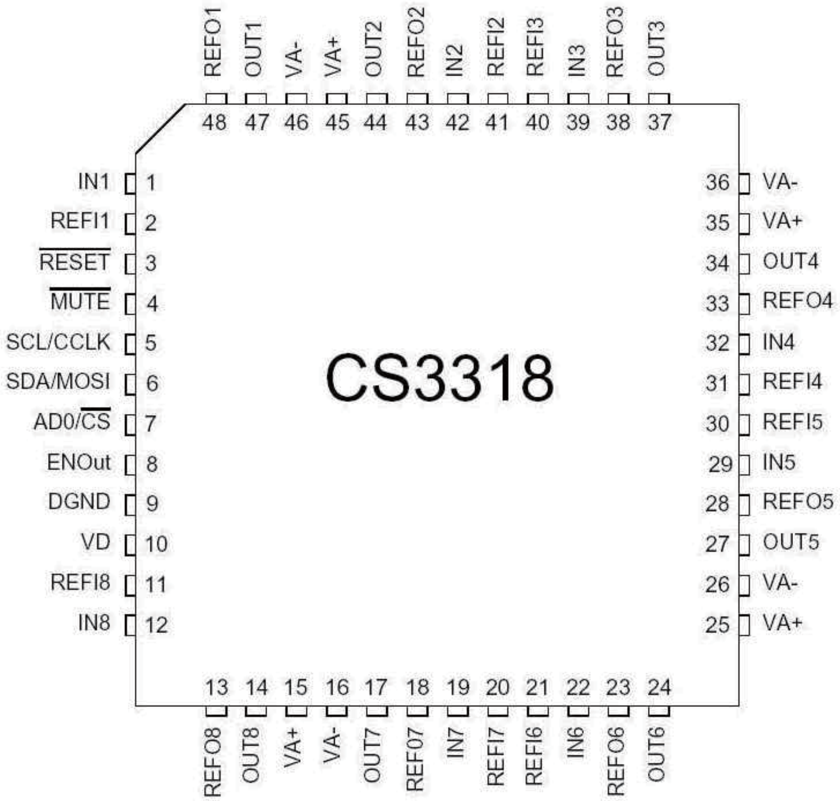
BLOCK DIAGRAM


IN1 1
VA+ 45
VA- 46
REFI1 2
IN2 42
REFI2 41
IN3 39
VA+ 35
VA- 36
REFI3 40
IN4 32
REFI4 31
RESET 3
SDA/MOSI 6
SCL/CLLK 5
AD0/CS 7
MUTE 4
IN5 29
VA+ 25
VA- 26
REFI5 30
IN6 22
REFI6 21
IN7 19
VA+ 15
VA- 16
REFI7 20
IN8 12
REFI8 11
Zero Crossing Detector
0 ~ -96 dB
RIN
ROUT
0 ~ +22 dB
+
−
47 OUT1
48 REFO1
44 OUT2
43 REFO2
37 OUT3
38 REFO3
34 OUT4
33 REFO4
Ch. 4 Control
Ch. 3 Control
Ch. 2 Control
Ch. 1 Control
Control Registers
Ch. 8 Control
Ch. 7 Control
Ch. 6 Control
Ch. 5 Control
8 ENOut
10 VD
9 DGND
27 OUT5
28 REFO5
24 OUT6
23 REFO6
17 OUT7
18 REFO7
14 OUT8
13 REFO8

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -5

Q4405: CS3318-CQZR (8 Channel Analog Volume Control)

PIN CONFIGURATION


CS3318
1 IN1
2 REFI1
3 RESET
4 MUTE
5 SCL/CCLK
6 SDA/MOSI
7 AD0/CS
8 ENOut
9 DGND
10 VD
11 REFI8
12 IN8
13 REFO8
14 OUT8
15 VA+
16 VA-
17 OUT7
18 REF07
19 IN7
20 REFI7
21 REFI6
22 IN6
23 REFO6
24 OUT6
25 VA+
26 VA-
27 OUT5
28 REFO5
29 IN5
30 REFI5
31 REFI4
32 IN4
33 REFO4
34 OUT4
35 VA+
36 VA-
37 OUT3
38 REFO3
39 IN3
40 REFI3
41 REFI2
42 IN2
43 REFO2
44 OUT2
45 VA+
46 VA-
47 OUT1
48 REFO1

TERMINAL DESCRIPTION(1/2)

Pin Name	#	Pin Description
IN1	1	**Analog Inputs** (*Input*) **-** The full-scale level is specified in the Analog Characteristics specification table.
IN2	42	
IN3	39	
IN4	32	
IN5	29	
IN6	22	
IN7	19	
IN8	12	

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -6

Q4405: CS3318-CQZR (8 Channel Analog Volume Control)

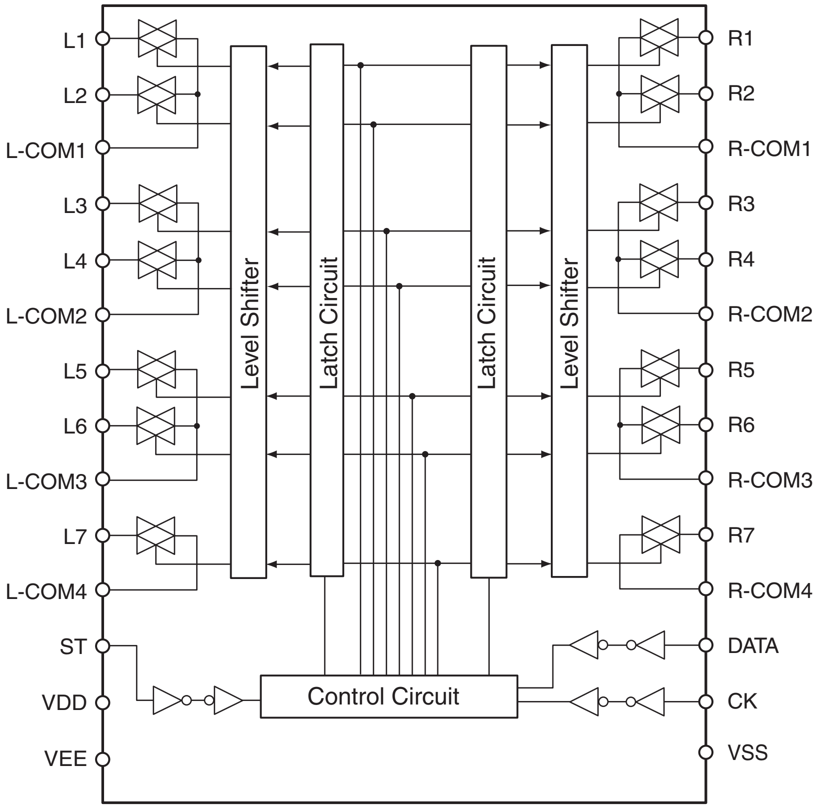
TERMINAL DESCRIPTION(2/2)

Pin Name	#	Pin Description
OUT1	47	**Analog Outputs** (*Output*) - The full-scale output level is specified in the Analog Characteristics specification table.
OUT2	44	
OUT3	37	
OUT4	34	
OUT5	27	
OUT6	24	
OUT7	17	
OUT8	14	
REFI1	2	**Reference In** (*Input*) - Analog reference pin.
REFI2	41	
REFI3	40	
REFI4	31	
REFI5	30	
REFI6	21	
REFI7	20	
REFI8	11	
REFO1	48	**Reference Out** (*Output*) - Analog reference pin.
REFO2	43	
REFO3	38	
REFO4	33	
REFO5	28	
REFO6	23	
REFO7	18	
REFO8	13	
VA+	15, 25, 35, 45	**Positive Analog Power** *(Input)* **-** Positive power for the internal analog section.
VA-	16, 26, 36, 46	**Negative Analog Power** *(Input)* **-** Negative power for the internal analog section.
$\overline{\text{RESET}}$	3	**Reset** (*Input*) - The device enters a low-power mode when this pin is driven low.
$\overline{\text{MUTE}}$	4	**Mute** (*Input*) - This pin defaults to an active low mute input, and may be configured as an active high mute input.
SCL/CCLK	5	**Serial Control Port Clock** (*Input*) - Serial clock for the serial control port.
SDA/MOSI	6	**Serial Control Data** (*Input/Output*) - SDA is a data I/O line for the control port interface in I^{2}C Mode. MOSI is the input data line for the control port interface in SPI Mode.
AD0/$\overline{\text{CS}}$	7	**Default Address Bit 0 (I^{2}C) / Control Port Chip Select (SPI)** *(Input)* - AD0 sets the LSB of the default chip address in I^{2}C Mode. $\overline{\text{CS}}$ is the chip-select signal for SPI format.
ENOut	8	**Enable Output** (*Output*) **-** Enable output signal for multi-device serial control chain configuration.
DGND	9	**Digital Ground** (*Input*) - Ground reference for the internal digital section.
VD	10	**Digital Power** (*Input*) **-** Positive power for the internal digital section.

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -7

Q4306: NJU7311AM(Analog Function Switch)

BLOCK DIAGRAM


L1
L2
L-COM1
L3
L4
L-COM2
L5
L6
L-COM3
L7
L-COM4
ST
VDD
VEE
Level Shifter
Latch Circuit
Latch Circuit
Level Shifter
Control Circuit
R1
R2
R-COM1
R3
R4
R-COM2
R5
R6
R-COM3
R7
R-COM4
DATA
CK
VSS

TERMINAL DESCRIPTION

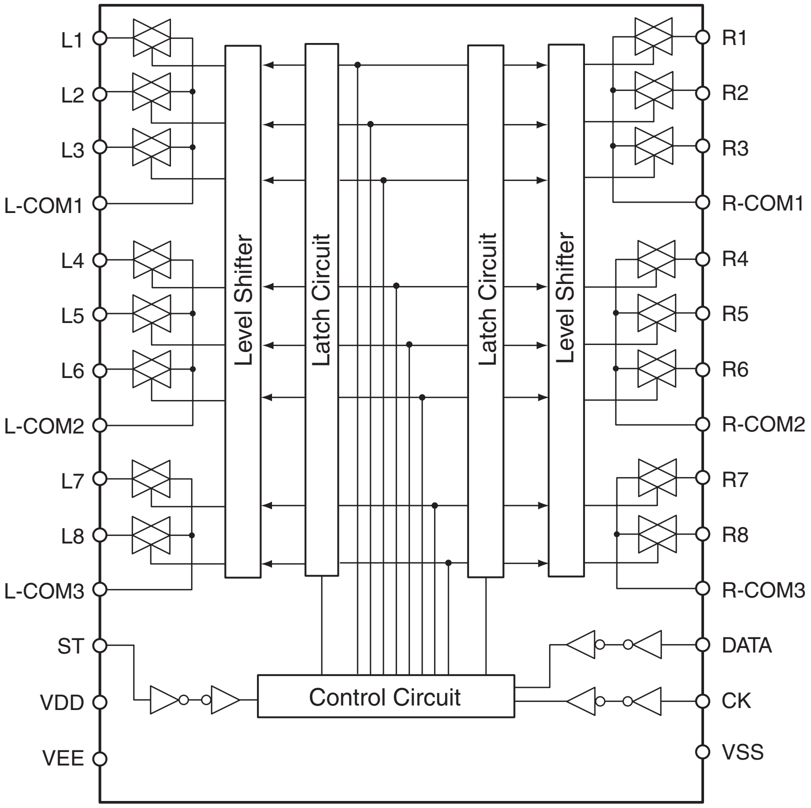
Pin No.	Pin Name	Description
1	VEE	Negative Voltage Supply
2	L1	Analog switch input/output
3	L2	Analog switch input/output
4	L-COM1	L1, L2, Common
5	L3	Analog switch input/output
6	L4	Analog switch input/output
7	L-COM2	L3, L4 common
8	L5	Analog switch input/output
9	L6	Analog switch input/output
10	L-COM3	L5, L6 Common
11	L7	Analog switch input/output
12	L-COM4	L7 Common
14	ST	Chip enable
15	VSS	GND

Pin No.	Pin Name	Description
16	CK	Clock input
17	DATA	Data input
19	R-COM4	R7 Common
20	R7	Analog switch input/output
21	R-COM3	R5, R6 Common
22	R6	Analog switch input/output
23	R5	Analog switch input/output
24	R-COM2	R3, R4 Common
25	R4	Analog switch input/output
26	R3	Analog switch input/output
27	R-COM1	R1, R2, Common
28	R2	Analog switch input/output
29	R1	Analog switch input/output
30	VDD	Positive voltage supply

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -8

Q2027, Q4304, Q7181: NJU7312AM(Analog Function Switch)

BLOCK DIAGRAM


L1
L2
L3
L-COM1
L4
L5
L6
L-COM2
L7
L8
L-COM3
ST
VDD
VEE
Level Shifter
Latch Circuit
Latch Circuit
Level Shifter
Control Circuit
R1
R2
R3
R-COM1
R4
R5
R6
R-COM2
R7
R8
R-COM3
DATA
CK
VSS

TERMINAL DESCRIPTION

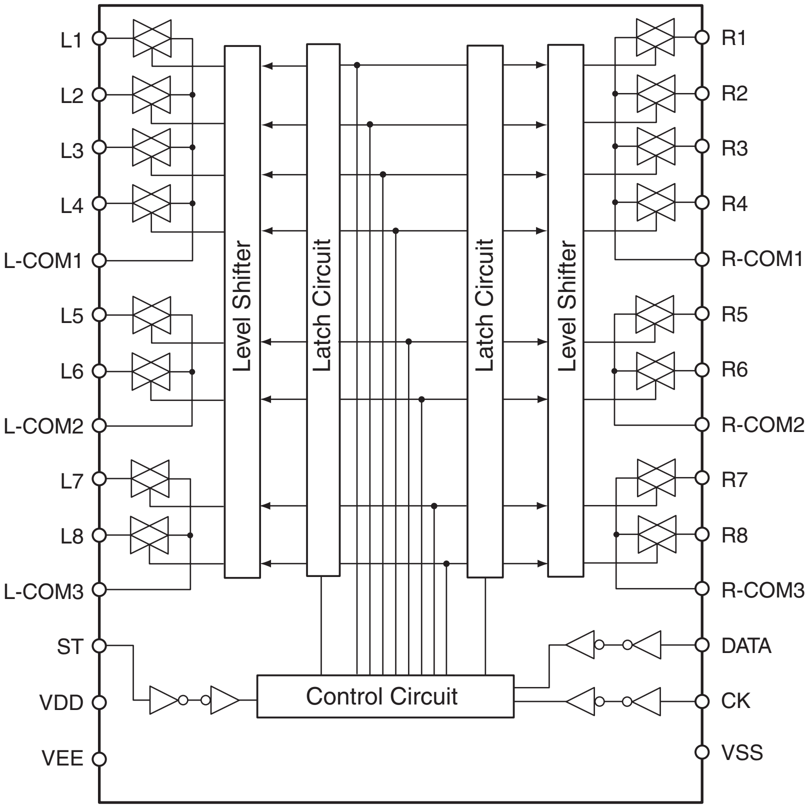
Pin No.	Pin Name	Description
1	VEE	Negative Voltage Supply
2	L1	Analog switch input/output
3	L2	Analog switch input/output
4	L3	Analog switch input/output
5	L-COM1	L1, L2, L3 Common
6	L4	Analog switch input/output
7	L5	Analog switch input/output
8	L6	Analog switch input/output
9	L-COM2	L4, L5, L6 common
10	L7	Analog switch input/output
11	L8	Analog switch input/output
12	L-COM3	L7, L8 Common
14	ST	Chip enable
15	VSS	GND

Pin No.	Pin Name	Description
16	CK	Clock input/output
17	DATA	Data input
19	R-COM3	R7, R8 Common
20	R8	Analog switch input/output
21	R7	Analog switch input/output
22	R-COM2	R4, R5, R6 Common
23	R6	Analog switch input/output
24	R5	Analog switch input/output
25	R4	Analog switch input/output
26	R-COM1	R1, R2, R3 Common
27	R3	Analog switch input/output
28	R2	Analog switch input/output
29	R1	Analog switch input/output
30	VDD	Positive voltage supply

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -9

Q4305: NJU7313AM (Analog Function Switch)

BLOCK DIAGRAM


L1
L2
L3
L4
L-COM1
L5
L6
L-COM2
L7
L8
L-COM3
ST
VDD
VEE
Level Shifter
Latch Circuit
Latch Circuit
Level Shifter
Control Circuit
R1
R2
R3
R4
R-COM1
R5
R6
R-COM2
R7
R8
R-COM3
DATA
CK
VSS

TERMINAL DESCRIPTION

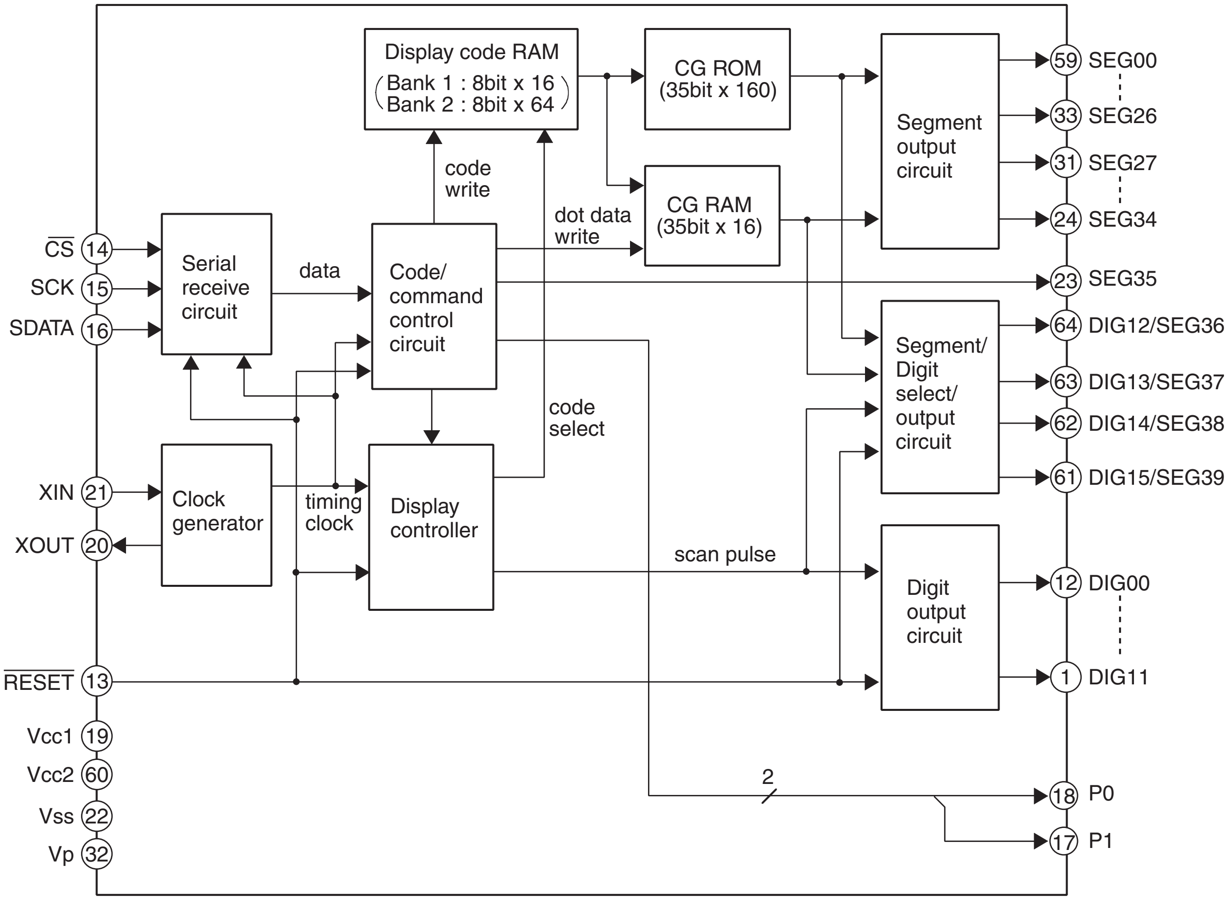
Pin No.	Pin Name	Description
1	VEE	Negative Voltage Supply
2	L1	Analog switch input/output
3	L2	Analog switch input/output
4	L3	Analog switch input/output
5	L4	Analog switch input/output
6	L-COM1	L1, L2, L3, L4 Common
7	L5	Analog switch input/output
8	L6	Analog switch input/output
9	L-COM2	L5, L6 common
10	L7	Analog switch input/output
11	L8	Analog switch input/output
12	L-COM3	L7, L8 Common
14	ST	Chip enable
15	VSS	GND

Pin No.	Pin Name	Description
16	CK	Clock input
17	DATA	Data input
19	R-COM3	R7, R8 Common
20	R8	Analog switch input/output
21	R7	Analog switch input/output
22	R-COM2	R5, R6 Common
23	R6	Analog switch input/output
24	R5	Analog switch input/output
25	R-COM1	R1, R2, R3, R4 Common
26	R4	Analog switch input/output
27	R3	Analog switch input/output
28	R2	Analog switch input/output
29	R1	Analog switch input/output
30	VDD	Positive voltage supply

IC BLOCK DIAGRAM AND TERMINAL DESCRIPTIONS -10

Q7501,Q7502: M66005-0001AHP (FL Tube Driver)

BLOCK DIAGRAM



Display code RAM
Bank 1 : 8bit x 16
Bank 2 : 8bit x 64
CG ROM (35bit x 160)
CG RAM (35bit x 16)
Segment output circuit
code write
dot data write
data
Serial receive circuit
Code/ command control circuit
Segment/ Digit select/ output circuit
code select
Clock generator
timing clock
Display controller
scan pulse
Digit output circuit
2
CS 14
SCK 15
SDATA 16
XIN 21
XOUT 20
RESET 13
Vcc1 19
Vcc2 60
Vss 22
Vp 32
59 SEG00
33 SEG26
31 SEG27
24 SEG34
23 SEG35
64 DIG12/SEG36
63 DIG13/SEG37
62 DIG14/SEG38
61 DIG15/SEG39
12 DIG00
1 DIG11
18 P0
17 P1

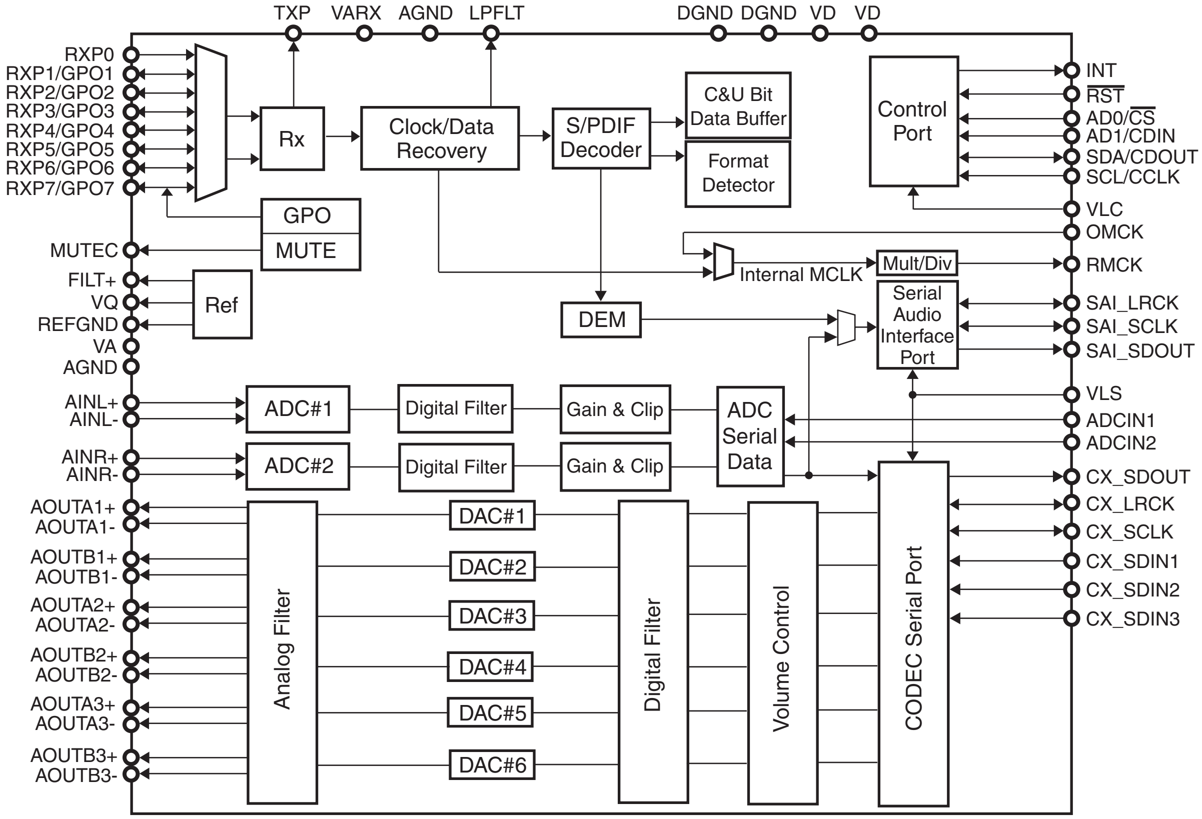
TERMINAL DESCRIPTION

PIN NO.	SYMBOL	PIN NAME	DESCRIPTION
13	$\overline{\text{RESET}}$	Reset input	This pin is used to initialize the internal state of the M66004.
14	$\overline{\text{CS}}$	Chip select input	"L" : Communication with the MCU is possible. "H" : Any instruction from the MCU is neglected.
15	SCK	Shift clock input	At the rising edge from "L" to "H", input data is shifted.
16	SDATA	Serial data input	Character code or command data to display is input from MSB.
21, 20	XIN, XOUT	Clock input Clock output	This pin is used to connect a resister and a capacitor externally to set oscillation frequency.
1~12 61~64	DIG00 ~ DIG15	Digit output	These pins are used to connect to digit pins of VFD.
23~31 33~59	SEG00 ~ SEG39	Segment output	These pins are used to connect to segment pins of VFD.
17, 18	P0, P1		Output port (static operation)
19	VCC1		Positive power supply for internal logic.
60	VCC2		Positive power supply for high-pressure-resistant output port.
22	VSS		GND
32	VP		Negative power supply for VFD drive.

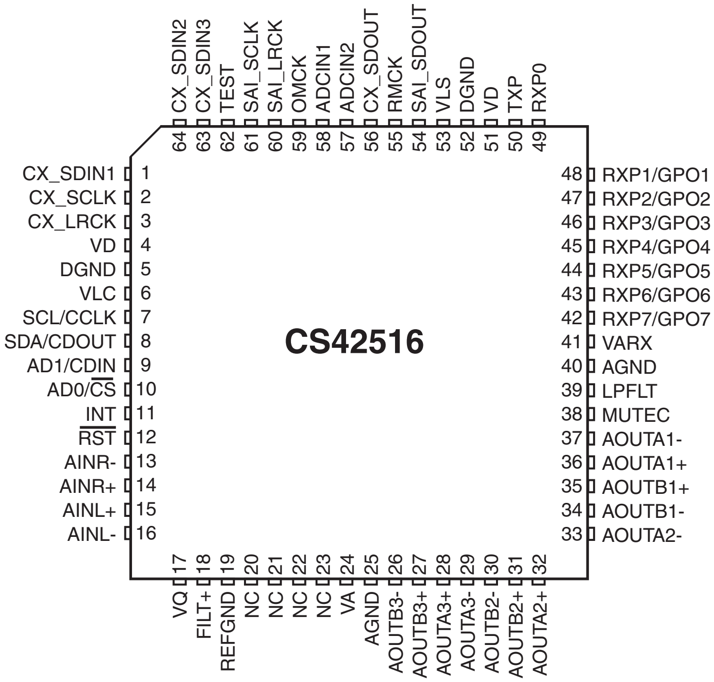
IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -11

Q3041 : CS42516-CQZ (192 kHz, 6-Ch Codec with S/PDIF Receiver)

BLOCK DIAGRAM


TXP
VARX
AGND
LPFLT
DGND
DGND
VD
VD
RXP0
RXP1/GPO1
RXP2/GPO2
RXP3/GPO3
RXP4/GPO4
RXP5/GPO5
RXP6/GPO6
RXP7/GPO7
Rx
Clock/Data Recovery
S/PDIF Decoder
C&U Bit Data Buffer
Format Detector
Control Port
INT
RST
AD0/CS
AD1/CDIN
SDA/CDOUT
SCL/CCLK
VLC
OMCK
GPO
MUTE
MUTEC
Internal MCLK
Mult/Div
RMCK
FILT+
VQ
REFGND
VA
AGND
Ref
DEM
Serial Audio Interface Port
SAI_LRCK
SAI_SCLK
SAI_SDOUT
VLS
ADCIN1
ADCIN2
AINL+
AINL-
ADC#1
Digital Filter
Gain & Clip
ADC Serial Data
AINR+
AINR-
ADC#2
Digital Filter
Gain & Clip
CX_SDOUT
CX_LRCK
CX_SCLK
CX_SDIN1
CX_SDIN2
CX_SDIN3
AOUTA1+
AOUTA1-
AOUTB1+
AOUTB1-
AOUTA2+
AOUTA2-
AOUTB2+
AOUTB2-
AOUTA3+
AOUTA3-
AOUTB3+
AOUTB3-
Analog Filter
DAC#1
DAC#2
DAC#3
DAC#4
DAC#5
DAC#6
Digital Filter
Volume Control
CODEC Serial Port

PIN CONFIGURATION


CS42516
64 CX_SDIN2
63 CX_SDIN3
62 TEST
61 SAI_SCLK
60 SAI_LRCK
59 OMCK
58 ADCIN1
57 ADCIN2
56 CX_SDOUT
55 RMCK
54 SAI_SDOUT
53 VLS
52 DGND
51 VD
50 TXP
49 RXP0
CX_SDIN1 1
CX_SCLK 2
CX_LRCK 3
VD 4
DGND 5
VLC 6
SCL/CCLK 7
SDA/CDOUT 8
AD1/CDIN 9
AD0/CS 10
INT 11
RST 12
AINR- 13
AINR+ 14
AINL+ 15
AINL- 16
48 RXP1/GPO1
47 RXP2/GPO2
46 RXP3/GPO3
45 RXP4/GPO4
44 RXP5/GPO5
43 RXP6/GPO6
42 RXP7/GPO7
41 VARX
40 AGND
39 LPFLT
38 MUTEC
37 AOUTA1-
36 AOUTA1+
35 AOUTB1+
34 AOUTB1-
33 AOUTA2-
VQ 17
FILT+ 18
REFGND 19
NC 20
NC 21
NC 22
NC 23
VA 24
AGND 25
AOUTB3- 26
AOUTB3+ 27
AOUTA3+ 28
AOUTA3- 29
AOUTB2- 30
AOUTB2+ 31
AOUTA2+ 32

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -12

Q3041 : CS42516-CQZ (192 kHz, 6-Ch Codec with S/PDIF Receiver)

TERMINAL DESCRIPTION(1/2)

Pin Name	#	Pin Description
CX_SDIN1 CX_SDIN2 CX_SDIN3	1 64 63	**Codec Serial Audio Data Input** (*Input*) - Input for two's complement serial audio data.
CX_SCLK	2	**CODEC Serial Clock** (*Input/Output*) - Serial clock for the CODEC serial audio interface.
CX_LRCK	3	**CODEC Left Right Clock** (*Input/Output*) - Determines which channel, Left or Right, is currently active on the CODEC serial audio data line.
VD	4 51	**Digital Power** (*Input*) - Positive power supply for the digital section.
DGND	5 52	**Digital Ground** (*Input*) - Ground reference. Should be connected to digital ground.
VLC	6	**Control Port Power** (*Input*) **-** Determines the required signal level for the control port.
SCL/CCLK	7	**Serial Control Port Clock** (*Input*) - Serial clock for the serial control port. Requires an external pull-up resistor to the logic interface voltage in I²C mode as shown in the Typical Connection Diagram.
SDA/CDOUT	8	**Serial Control Data** (*Input/Output*) **-** SDA is a data I/O line in I²C mode and requires an external pull-up resistor to the logic interface voltage, as shown in the Typical Connection Diagram. CDOUT is the output data line for the control port interface in SPI mode.
AD1/CDIN	9	**Address Bit 1 (I²C)/Serial Control Data (SPI)** (*Input*) - AD1 is a chip address pin in I²C mode; CDIN is the input data line for the control port interface in SPI mode.
AD0/$\overline{\text{CS}}$	10	**Address Bit 0 (I²C)/Control Port Chip Select (SPI)** (*Input*) **-** AD0 is a chip address pin in I²C mode; $\overline{\text{CS}}$ is the chip select signal in SPI mode.
INT	11	**Interrupt** (*Output*) - The CS42516 will generate an interrupt condition as per the Interrupt Mask register.
$\overline{\text{RST}}$	12	**$\overline{\text{Reset}}$** (*Input*) - The device enters a low power mode and all internal registers are reset to their default settings when low.
AINR- AINR+	13 14	**Differential Right Channel Analog Input** (*Input*) - Signals are presented differentially to the delta-sigma modulators via the AINR+/- pins.
AINL+ AINL-	15 16	**Differential Left Channel Analog Input** (*Input*) - Signals are presented differentially to the delta-sigma modulators via the AINL+/- pins.
VQ	17	**Quiescent Voltage** (*Output*) **-** Filter connection for internal quiescent reference voltage.
FILT+	18	**Positive Voltage Reference** (*Output*) - Positive reference voltage for the internal sampling circuits.
REFGND	19	**Reference Ground** (*Input*) - Ground reference for the internal sampling circuits.
NC	20 21 22 23	**No Connect Pins** - Do not make any connection to these pins.
AOUTA1 +,- AOUTB1 +,- AOUTA2 +,- AOUTB2 +,- AOUTA3 +,- AOUTB3 +,-	36,37 35,34 32,33 31,30 28,29 27,26	**Differential Analog Output** (*Output*) - The full-scale differential analog output level is specified in the Analog Characteristics specification table.
VA VARX	24 41	**Analog Power** (*Input*) - Positive power supply for the analog section.
AGND	25 40	**Analog Ground** (*Input*) - Ground reference. Should be connected to analog ground.

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -13

Q3041 : CS42516-CQZ (192 kHz, 6-Ch Codec with S/PDIF Receiver)

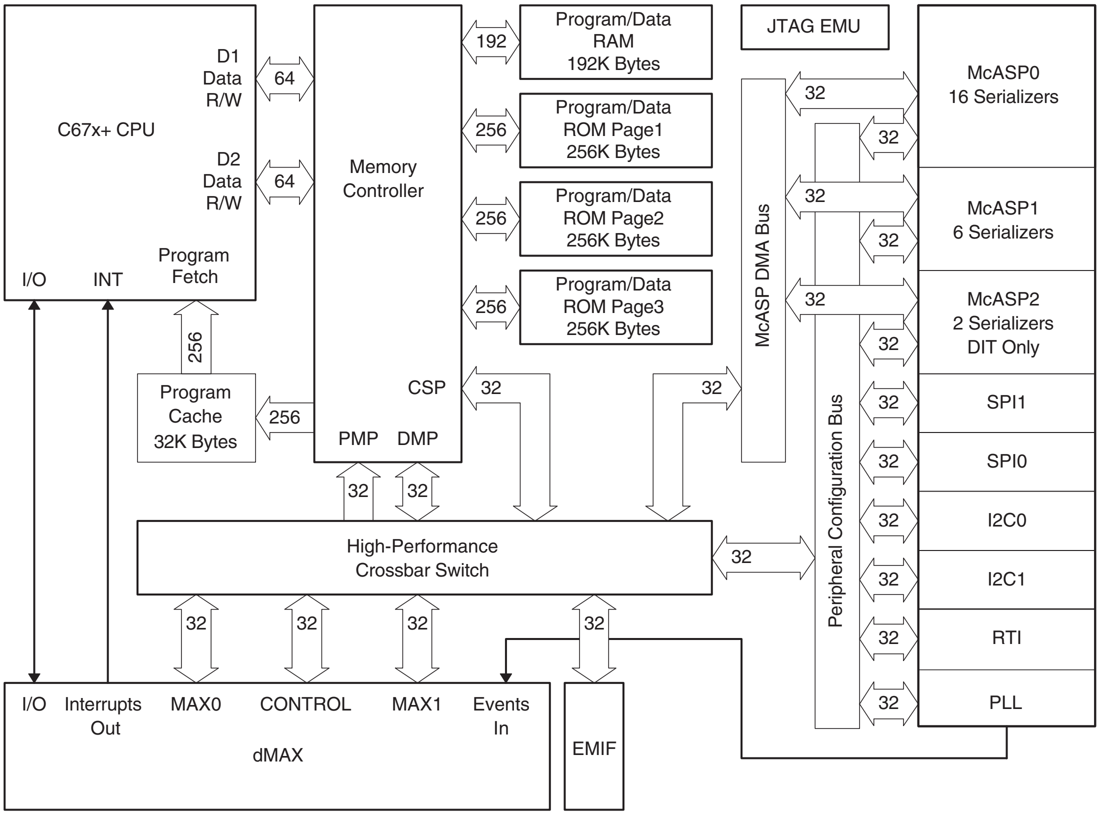
TERMINAL DESCRIPTION(2/2)

Pin Name	#	Pin Description
RXP7/GPO7 RXP6/GPO6 RXP5/GPO5 RXP4/GPO4 RXP3/GPO3 RXP2/GPO2 RXP1/GPO1	42 43 44 45 46 47 48	**S/PDIF Receiver Input/ General Purpose Output** (*Input/Output*) - Receiver inputs for S/PDIF encoded data. The CS42516 has an internal 8:2 multiplexer to select the active receiver port, according to the Receiver Mode Control 2 register. These pins can also be configured as general purpose output pins, ADC Overflow indicators or Mute Control outputs according to the RXP/General Purpose Pin Control registers.
RXP0	49	**S/PDIF Receiver Input** (*Input*) - Dedicated receiver input for S/PDIF encoded data.
TXP	50	**S/PDIF Transmitter Output** (*Output*) - S/PDIF encoded data output, mapped directly from one of the receiver inputs as indicated by the Receiver Mode Control 2 register.
VLS	53	**Serial Port Interface Power** (*Input*) - Determines the required signal level for the serial port interfaces.
SAI_SDOUT	54	**Serial Audio Interface Serial Data Output** (*Output*) - Output for two's complement serial audio PCM data from the S/PDIF incoming stream. This pin can also be configured to transmit the output of the internal and external ADCs.
RMCK	55	**Recovered Master Clock** (*Output*) - Recovered master clock output from the External Clock Reference (OMCK, pin 59) or the PLL which is locked to the incoming S/PDIF stream or CX_LRCK.
CX_SDOUT	56	**CODEC Serial Data Output** (*Output*) - Output for two's complement serial audio data from the internal and external ADCs.
ADCIN1 ADCIN2	58 57	**External ADC Serial Input** (*Input*) - The CS42516 provides for up to two external stereo analog to digital converter inputs to provide a maximum of six channels on one serial data output line when the CS42516 is placed in One-Line Mode.
OMCK	59	**External Reference Clock** (*Input*) - External clock reference
TEST	62	**Test Pin** (*Input*) - This pin must be connected to DGND.
SAI_LRCK	60	**Serial Audio Interface Left/Right Clock** (*Input/Output*) - Determines which channel, Left or Right, is currently active on the serial audio data line.
SAI_SCLK	61	**Serial Audio Interface Serial Clock** *(Input/Output)* - Serial clock for the Serial Audio Interface.

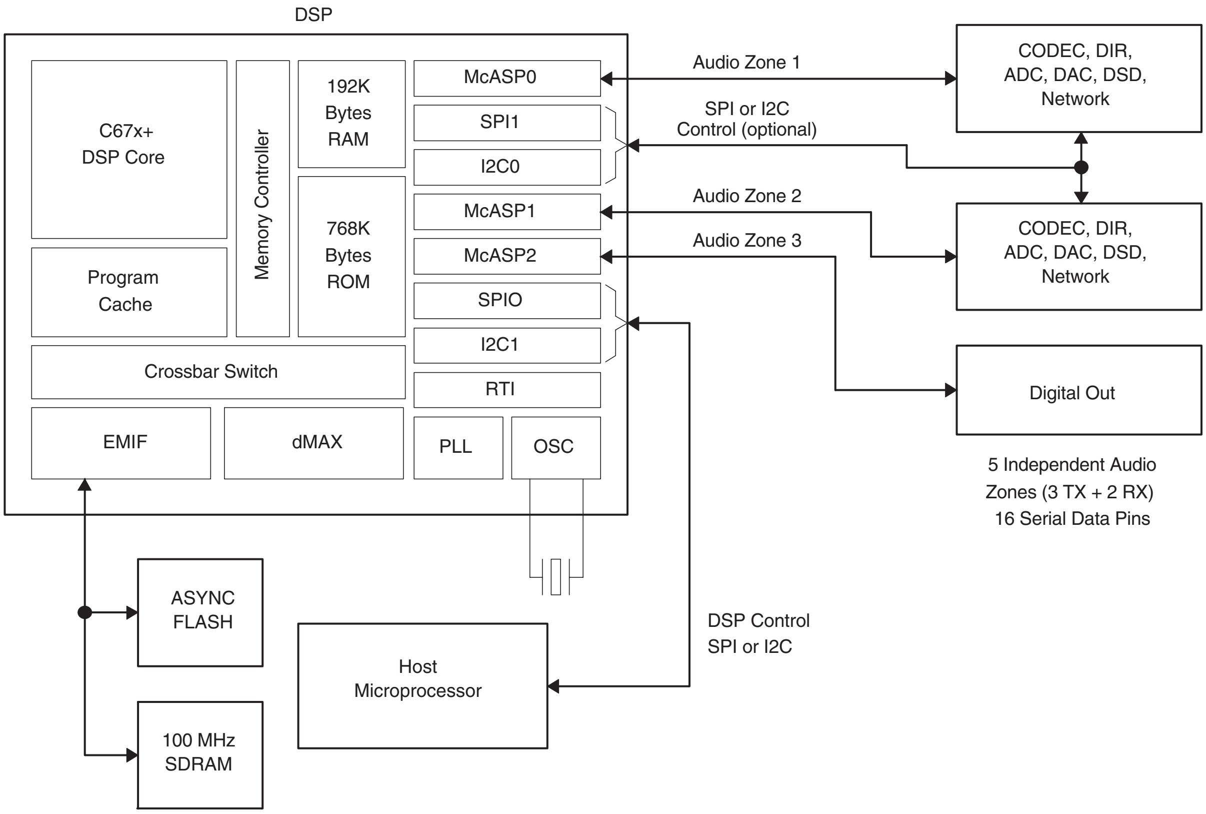
IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -14

Q3601 : D707E001BRFP250 (32 bit Floating-Point Digital Signal Processor)

BLOCK DIAGRAM


C67x+ CPU
D1 Data R/W
D2 Data R/W
64
64
Program Fetch
I/O
INT
256
Program Cache 32K Bytes
256
Memory Controller
CSP
PMP
DMP
192
256
256
256
Program/Data RAM 192K Bytes
Program/Data ROM Page1 256K Bytes
Program/Data ROM Page2 256K Bytes
Program/Data ROM Page3 256K Bytes
JTAG EMU
McASP DMA Bus
Peripheral Configuration Bus
32
McASP0 16 Serializers
McASP1 6 Serializers
McASP2 2 Serializers DIT Only
SPI1
SPI0
I2C0
I2C1
RTI
PLL
High-Performance Crossbar Switch
I/O
Interrupts Out
MAX0
CONTROL
MAX1
Events In
dMAX
EMIF

SYSTEM DIAGRAM

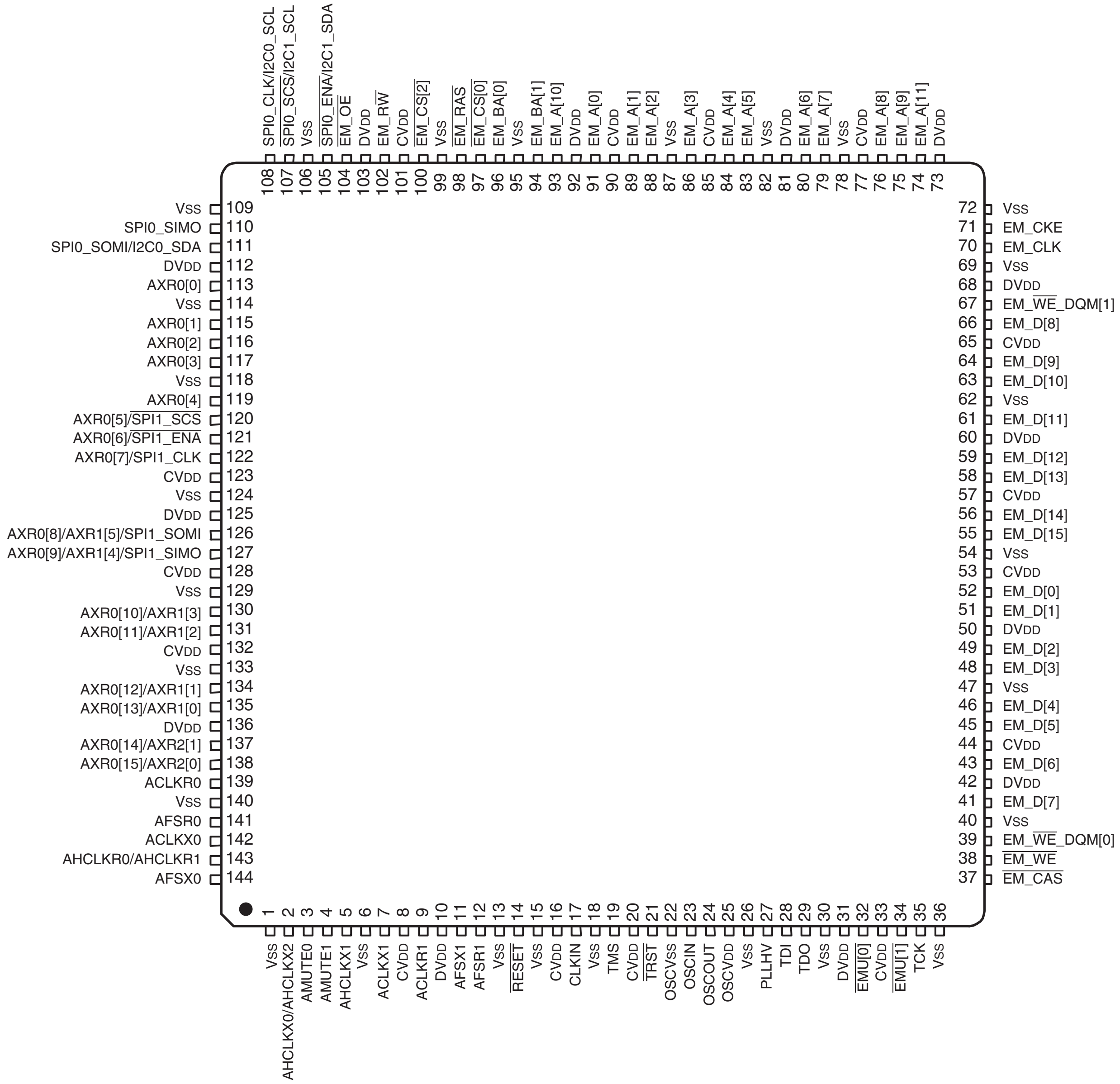

DSP
C67x+ DSP Core
Program Cache
Memory Controller
192K Bytes RAM
768K Bytes ROM
McASP0
SPI1
I2C0
McASP1
McASP2
SPIO
I2C1
RTI
Crossbar Switch
EMIF
dMAX
PLL
OSC
Audio Zone 1
SPI or I2C Control (optional)
Audio Zone 2
Audio Zone 3
CODEC, DIR, ADC, DAC, DSD, Network
CODEC, DIR, ADC, DAC, DSD, Network
Digital Out
ASYNC FLASH
100 MHz SDRAM
Host Microprocessor
DSP Control SPI or I2C

5 Independent Audio
Zones (3 TX + 2 RX)
16 Serial Data Pins

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -15

Q3601 : D707E001BRFP250 (32 bit Floating-Point Digital Signal Processor)

PIN CONFIGURATION


108 SPI0_CLK/I2C0_SCL
107 SPI0_SCS/I2C1_SCL
106 VSS
105 SPI0_ENA/I2C1_SDA
104 EM_OE
103 DVDD
102 EM_RW
101 CVDD
100 EM_CS[2]
99 VSS
98 EM_RAS
97 EM_CS[0]
96 EM_BA[0]
95 VSS
94 EM_BA[1]
93 EM_A[10]
92 DVDD
91 EM_A[0]
90 CVDD
89 EM_A[1]
88 EM_A[2]
87 VSS
86 EM_A[3]
85 CVDD
84 EM_A[4]
83 EM_A[5]
82 VSS
81 DVDD
80 EM_A[6]
79 EM_A[7]
78 VSS
77 CVDD
76 EM_A[8]
75 EM_A[9]
74 EM_A[11]
73 DVDD
VSS 109
SPI0_SIMO 110
SPI0_SOMI/I2C0_SDA 111
DVDD 112
AXR0[0] 113
VSS 114
AXR0[1] 115
AXR0[2] 116
AXR0[3] 117
VSS 118
AXR0[4] 119
AXR0[5]/SPI1_SCS 120
AXR0[6]/SPI1_ENA 121
AXR0[7]/SPI1_CLK 122
CVDD 123
VSS 124
DVDD 125
AXR0[8]/AXR1[5]/SPI1_SOMI 126
AXR0[9]/AXR1[4]/SPI1_SIMO 127
CVDD 128
VSS 129
AXR0[10]/AXR1[3] 130
AXR0[11]/AXR1[2] 131
CVDD 132
VSS 133
AXR0[12]/AXR1[1] 134
AXR0[13]/AXR1[0] 135
DVDD 136
AXR0[14]/AXR2[1] 137
AXR0[15]/AXR2[0] 138
ACLKR0 139
VSS 140
AFSR0 141
ACLKX0 142
AHCLKR0/AHCLKR1 143
AFSX0 144
72 VSS
71 EM_CKE
70 EM_CLK
69 VSS
68 DVDD
67 EM_WE_DQM[1]
66 EM_D[8]
65 CVDD
64 EM_D[9]
63 EM_D[10]
62 VSS
61 EM_D[11]
60 DVDD
59 EM_D[12]
58 EM_D[13]
57 CVDD
56 EM_D[14]
55 EM_D[15]
54 VSS
53 CVDD
52 EM_D[0]
51 EM_D[1]
50 DVDD
49 EM_D[2]
48 EM_D[3]
47 VSS
46 EM_D[4]
45 EM_D[5]
44 CVDD
43 EM_D[6]
42 DVDD
41 EM_D[7]
40 VSS
39 EM_WE_DQM[0]
38 EM_WE
37 EM_CAS
1 VSS
2 AHCLKX0/AHCLKX2
3 AMUTE0
4 AMUTE1
5 AHCLKX1
6 VSS
7 ACLKX1
8 CVDD
9 ACLKR1
10 DVDD
11 AFSX1
12 AFSR1
13 VSS
14 RESET
15 VSS
16 CVDD
17 CLKIN
18 VSS
19 TMS
20 CVDD
21 TRST
22 OSCVSS
23 OSCIN
24 OSCOUT
25 OSCVDD
26 VSS
27 PLLHV
28 TDI
29 TDO
30 VSS
31 DVDD
32 EMU[0]
33 CVDD
34 EMU[1]
35 TCK
36 VSS

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -16

Q3601 : D707E001BRFP250 (32 bit Floating-Point Digital Signal Processor)

TERMINAL DESCRIPTION(1/3)

SIGNAL NAME	PIN NO.	TYPE	DESCRIPTION
External Memory Interface (EMIF) Addressand Control			
EM_A[0]	91	O	EMIF Address Bus
EM_A[1]	89	O	
EM_A[2]	88	O	
EM_A[3]	86	O	
EM_A[4]	84	O	
EM_A[5]	83	O	
EM_A[6]	80	O	
EM_A[7]	79	O	
EM_A[8]	76	O	
EM_A[9]	75	O	
EM_A[10]	93	O	
EM_A[11]	74	O	
EM_BA[0]	96	O	SDRAM Bank Address and Asynchronous Memory Low-Order Address
EM_BA[1]	94	O	
$\overline{\text{EM\_CS}}$[0]	97	O	SDRAM Chip Select
$\overline{\text{EM\_CS}}$[2]	100	O	Asynchronous Memory Chip Select
$\overline{\text{EM\_CAS}}$	37	O	SDRAM Column Address Strobe
$\overline{\text{EM\_RAS}}$	98	O	SDRAM Row Address Strobe
$\overline{\text{EM\_WE}}$	38	O	SDRAM Write Enable
EM_CKE	71	O	SDRAM Clock Enable
EM_CLK	70	O	SDRAM Clock
EM_$\overline{\text{WE}}$_DQM[0]	39	O	Write Enable or Byte Enable for EM_D[7:0]
EM_$\overline{\text{WE}}$_DQM[1]	67	O	Write Enable or Byte Enable for EM_D[15:8]
$\overline{\text{EM\_OE}}$	104	O	SDRAM Output Enable
EM_$\overline{\text{R}}$W	102	O	Asynchronous Memory Read/not Write
External Memory Interface (EMIF) Data Bus			
EM_D[0]	52	IO	EMIF Data Bus [Lower 16 Bits]
EM_D[1]	51	IO	
EM_D[2]	49	IO	
EM_D[3]	48	IO	
EM_D[4]	46	IO	
EM_D[5]	45	IO	
EM_D[6]	43	IO	
EM_D[7]	41	IO	
EM_D[8]	66	IO	
EM_D[9]	64	IO	
EM_D[10]	63	IO	
EM_D[11]	61	IO	
EM_D[12]	59	IO	
EM_D[13]	58	IO	
EM_D[14]	56	IO	
EM_D[15]	55	IO	

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -17

Q3601 : D707E001BRFP250 (32 bit Floating-Point Digital Signal Processor)

TERMINAL DESCRIPTION(2/3)

SIGNAL NAME	PIN NO.	TYPE	DESCRIPTION
McASP0, McASP1, McASP2, and SPI1 Serial Ports			
AHCLKR0/AHCLKR1	143	IO	McASP0 and McASP1 Receive Master Clock
ACLKR0	139	IO	McASP0 Receive Bit Clock
AFSR0	141	IO	McASP0 Receive Frame Sync (L/R Clock)
AHCLKX0/AHCLKX2	2	IO	McASP0 and McASP2 Transmit Master Clock
ACLKX0	142	IO	McASP0 Transmit Bit Clock
AFSX0	144	IO	McASP0 Transmit Frame Sync (L/R Clock)
AMUTE0	3	O	McASP0 MUTE Output
AXR0[0]	113	IO	McASP0 Serial Data 0
AXR0[1]	115	IO	McASP0 Serial Data 1
AXR0[2]	116	IO	McASP0 Serial Data 2
AXR0[3]	117	IO	McASP0 Serial Data 3
AXR0[4]	119	IO	McASP0 Serial Data 4
AXR0[5]/$\overline{\text{SPI1\_SCS}}$	120	IO	McASP0 Serial Data 5 or SPI1 Slave Chip Select
AXR0[6]/$\overline{\text{SPI1\_ENA}}$	121	IO	McASP0 Serial Data 6 or SPI1 Enable (Ready)
AXR0[7]/SPI1_CLK	122	IO	McASP0 Serial Data 7 or SPI1 Serial Clock
AXR0[8]/AXR1[5]/ SPI1_SOMI	126	IO	McASP0 Serial Data 8 or McASP1 Serial Data 5 or SPI1 Data Pin Slave Out Master In
AXR0[9]/AXR1[4]/ SPI1_SIMO	127	IO	McASP0 Serial Data 9 or McASP1 Serial Data 4 or SPI1 Data Pin Slave In Master Out
AXR0[10]/AXR1[3]	130	IO	McASP0 Serial Data 10 or McASP1 Serial Data 3
AXR0[11]/AXR1[2]	131	IO	McASP0 Serial Data 11 or McASP1 Serial Data 2
AXR0[12]/AXR1[1]	134	IO	McASP0 Serial Data 12 or McASP1 Serial Data 1
AXR0[13]/AXR1[0]	135	IO	McASP0 Serial Data 13 or McASP1 Serial Data 0
AXR0[14]/AXR2[1]	137	IO	McASP0 Serial Data 14 or McASP2 Serial Data 1
AXR0[15]/AXR2[0]	138	IO	McASP0 Serial Data 15 or McASP2 Serial Data 0
ACLKR1	9	IO	McASP1 Receive Bit Clock
AFSR1	12	IO	McASP1 Receive Frame Sync (L/R Clock)
AHCLKX1	5	IO	McASP1 Transmit Master Clock
ACLKX1	7	IO	McASP1 Transmit Bit Clock
AFSX1	11	IO	McASP1 Transmit Frame Sync (L/R Clock)
AMUTE1	4	O	McASP1 MUTE Output
SPI0, I2C0, and I2C1 Serial Port Pins			
SPI0_SOMI/I2C0_SDA	111	IO	SPI0 Data Pin Slave Out Master In or I2C0 Serial Data
SPI0_SIMO	110	IO	SPI0 Data Pin Slave In Master Out
SPI0_CLK/I2C0_SCL	108	IO	SPI0 Serial Clock or I2C0 Serial Clock
$\overline{\text{SPI0\_SCS}}$/I2C1_SCL	107	IO	SPI0 Slave Chip Selector I2C1 Serial Clock
$\overline{\text{SPI0\_ENA}}$/I2C1_SDA	105	IO	SPI0 Enable (Ready) or I2C1 Serial Data

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -18

Q3601 : D707E001BRFP250 (32 bit Floating-Point Digital Signal Processor)

TERMINAL DESCRIPTION(3/3)

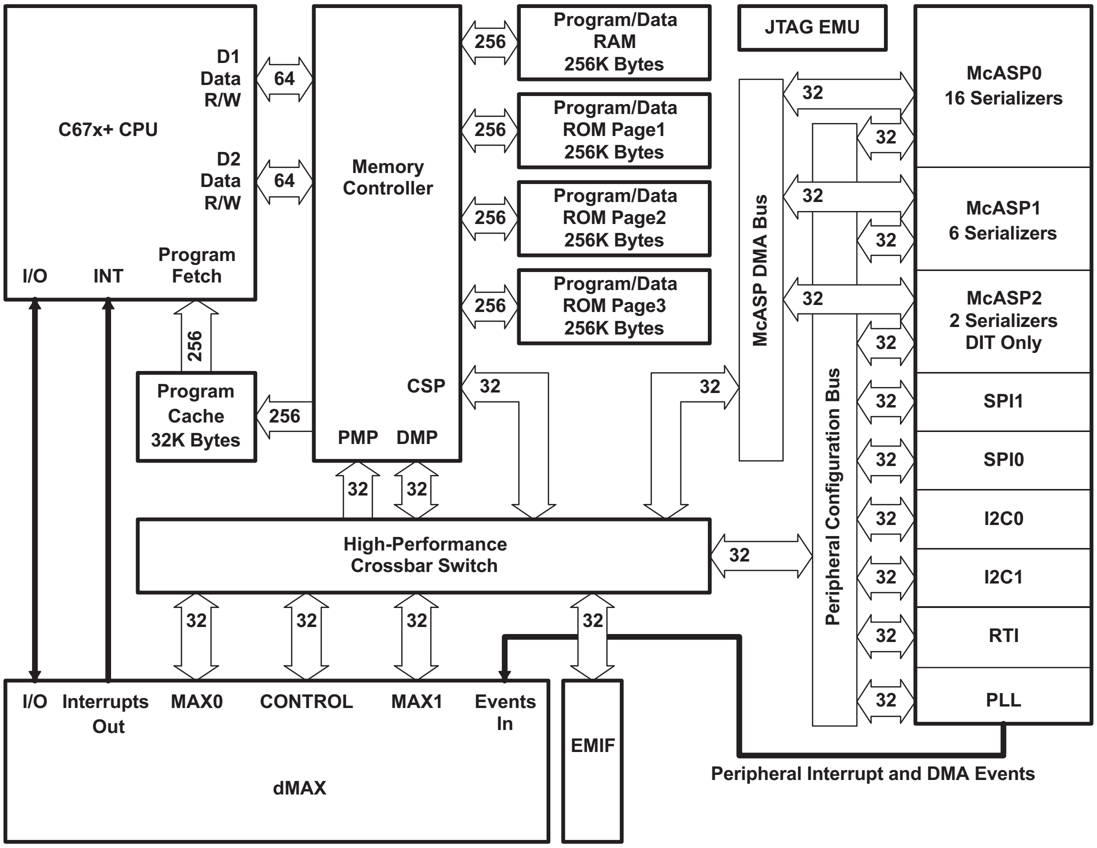
SIGNAL NAME	PIN NO.	TYPE	DESCRIPTION
Clocks			
OSCIN	23	I	1.2-V OscillatorInput
OSCOUT	24	O	1.2-V OscillatorOutput
OSCVDD	25	PWR	Oscillator 1.2-V VDD tap point (for filter only)
OSCVSS	22	PWR	Oscillator VSS tap point (for filter only)
CLKIN	17	I	Alternate clock input (3.3-V LVCMOS Input)
PLLHV	27	PWR	PLL 3.3-V Supply Input (requires external filter)
Device Reset			
$\overline{\text{RESET}}$	14	I	Device reset pin
Emulation/JTAG Port			
TCK	35	I	Test Clock
TMS	19	I	Test Mode Select
TDI	28	I	Test Data In
TDO	29	OZ	Test Data Out
$\overline{\text{TRST}}$	21	I	Test Reset
$\overline{\text{EMU}}$[0]	32	IO	Emulation Pin 0
$\overline{\text{EMU}}$[1]	34	IO	Emulation Pin 1
Power Pins			
Core Supply (CVDD)	8, 16, 20, 33, 44, 53, 57, 65, 77, 85, 90, 101, 123, 128, 132		
IO Supply (DVDD)	10, 31, 42, 50, 60, 68, 73, 81, 92, 103, 112, 125, 136		
Ground (VSS)	1, 6, 13, 15, 18, 26, 30, 36, 40, 47, 54, 62, 69, 72, 78, 82, 87, 95, 99, 106, 109, 114, 118, 124, 129, 133, 140		

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -19

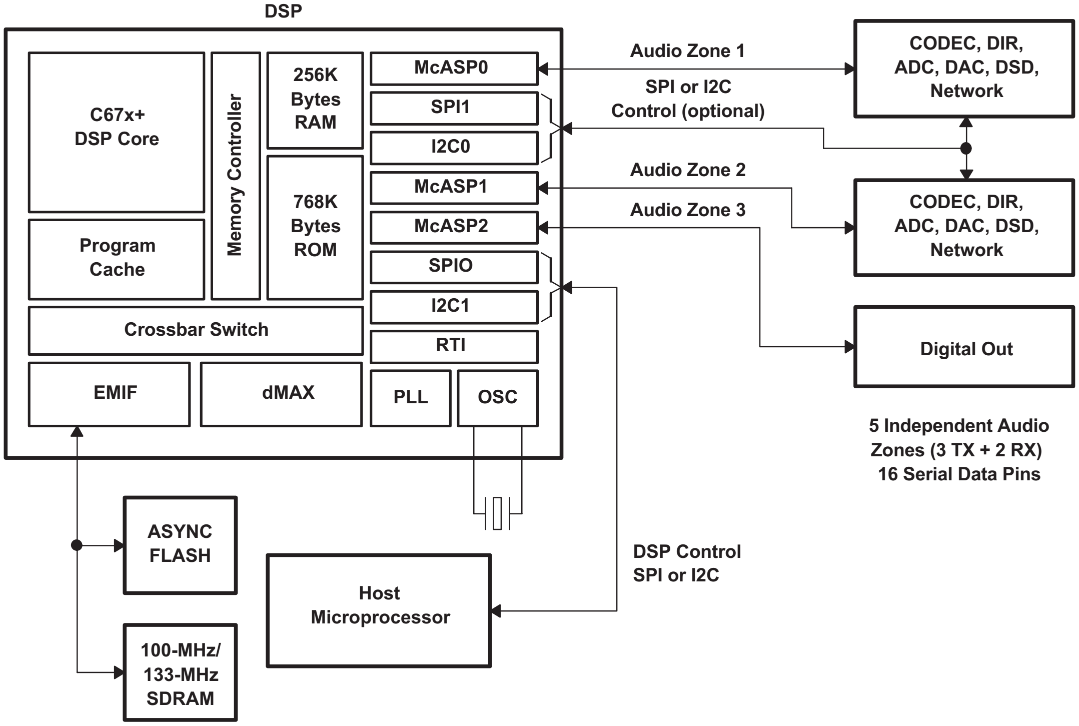
Q3501: D708E001BRFP266 (Audio DSP)

BLOCK DIAGRAM

Device Block Diagram


C67x+ CPU
D1 Data R/W
D2 Data R/W
Program Fetch
I/O
INT
64
64
256
Memory Controller
CSP
PMP
DMP
Program Cache 32K Bytes
256
Program/Data RAM 256K Bytes
Program/Data ROM Page1 256K Bytes
Program/Data ROM Page2 256K Bytes
Program/Data ROM Page3 256K Bytes
256
256
256
256
JTAG EMU
McASP DMA Bus
Peripheral Configuration Bus
McASP0 16 Serializers
McASP1 6 Serializers
McASP2 2 Serializers DIT Only
SPI1
SPI0
I2C0
I2C1
RTI
PLL
32
High-Performance Crossbar Switch
I/O
Interrupts Out
MAX0
CONTROL
MAX1
Events In
dMAX
EMIF
Peripheral Interrupt and DMA Events

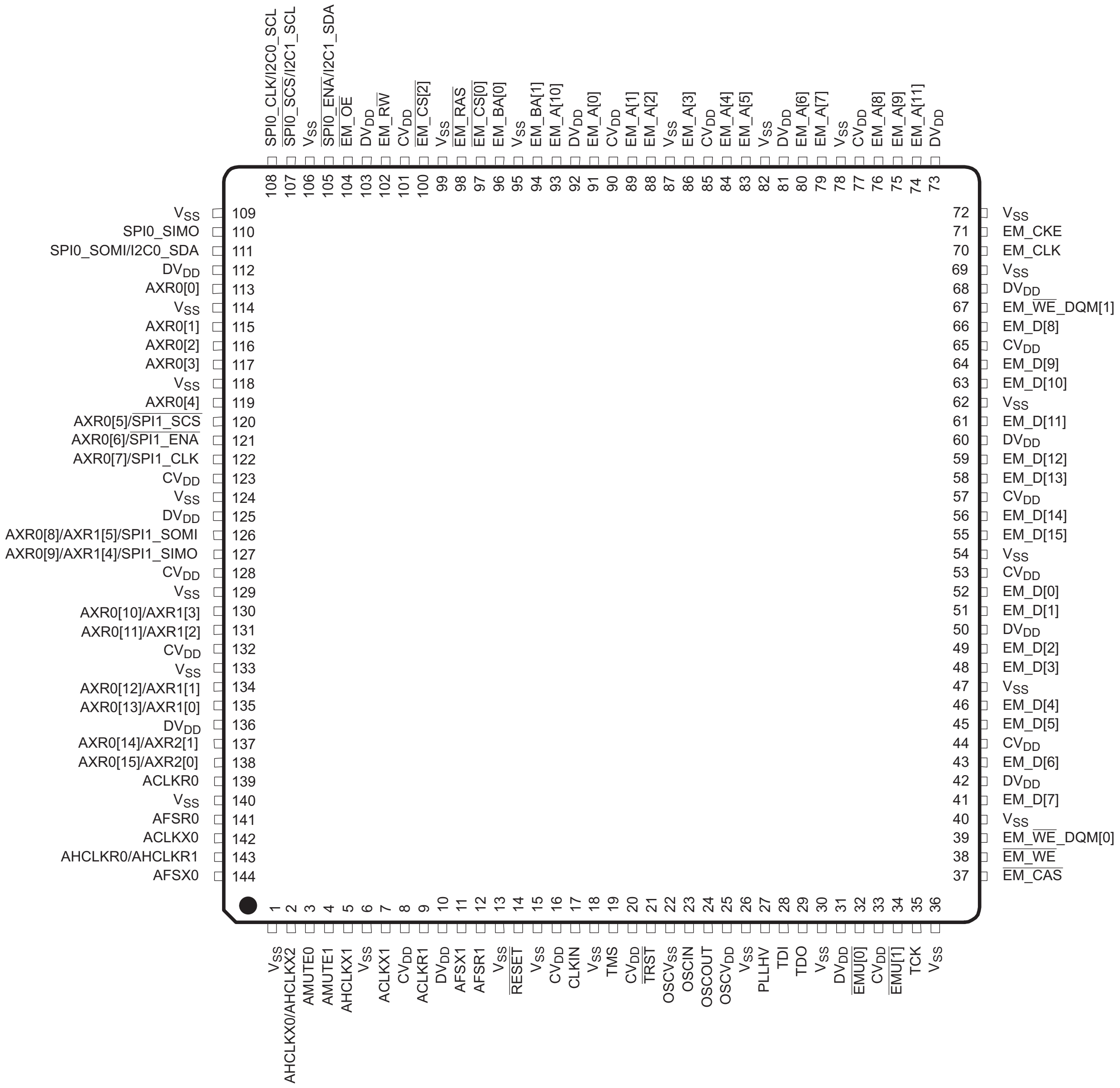
System Diagram


DSP
C67x+ DSP Core
Program Cache
Memory Controller
256K Bytes RAM
768K Bytes ROM
Crossbar Switch
EMIF
dMAX
McASP0
SPI1
I2C0
McASP1
McASP2
SPIO
I2C1
RTI
PLL
OSC
Audio Zone 1
SPI or I2C Control (optional)
Audio Zone 2
Audio Zone 3
CODEC, DIR, ADC, DAC, DSD, Network
CODEC, DIR, ADC, DAC, DSD, Network
Digital Out
5 Independent Audio Zones (3 TX + 2 RX) 16 Serial Data Pins
ASYNC FLASH
100-MHz/ 133-MHz SDRAM
Host Microprocessor
DSP Control SPI or I2C

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -20

Q3501: D708E001BRFP266 (Audio DSP)

PIN CONFIGURATION


108 SPI0_CLK/I2C0_SCL
107 SPI0_SCS/I2C1_SCL
106 V_{SS}
105 SPI0_ENA/I2C1_SDA
104 EM_OE
103 DV_{DD}
102 EM_RW
101 CV_{DD}
100 EM_CS[2]
99 V_{SS}
98 EM_RAS
97 EM_CS[0]
96 EM_BA[0]
95 V_{SS}
94 EM_BA[1]
93 EM_A[10]
92 DV_{DD}
91 EM_A[0]
90 CV_{DD}
89 EM_A[1]
88 EM_A[2]
87 V_{SS}
86 EM_A[3]
85 CV_{DD}
84 EM_A[4]
83 EM_A[5]
82 V_{SS}
81 DV_{DD}
80 EM_A[6]
79 EM_A[7]
78 V_{SS}
77 CV_{DD}
76 EM_A[8]
75 EM_A[9]
74 EM_A[11]
73 DV_{DD}
V_{SS} 109
SPI0_SIMO 110
SPI0_SOMI/I2C0_SDA 111
DV_{DD} 112
AXR0[0] 113
V_{SS} 114
AXR0[1] 115
AXR0[2] 116
AXR0[3] 117
V_{SS} 118
AXR0[4] 119
AXR0[5]/SPI1_SCS 120
AXR0[6]/SPI1_ENA 121
AXR0[7]/SPI1_CLK 122
CV_{DD} 123
V_{SS} 124
DV_{DD} 125
AXR0[8]/AXR1[5]/SPI1_SOMI 126
AXR0[9]/AXR1[4]/SPI1_SIMO 127
CV_{DD} 128
V_{SS} 129
AXR0[10]/AXR1[3] 130
AXR0[11]/AXR1[2] 131
CV_{DD} 132
V_{SS} 133
AXR0[12]/AXR1[1] 134
AXR0[13]/AXR1[0] 135
DV_{DD} 136
AXR0[14]/AXR2[1] 137
AXR0[15]/AXR2[0] 138
ACLKR0 139
V_{SS} 140
AFSR0 141
ACLKX0 142
AHCLKR0/AHCLKR1 143
AFSX0 144
72 V_{SS}
71 EM_CKE
70 EM_CLK
69 V_{SS}
68 DV_{DD}
67 EM_WE_DQM[1]
66 EM_D[8]
65 CV_{DD}
64 EM_D[9]
63 EM_D[10]
62 V_{SS}
61 EM_D[11]
60 DV_{DD}
59 EM_D[12]
58 EM_D[13]
57 CV_{DD}
56 EM_D[14]
55 EM_D[15]
54 V_{SS}
53 CV_{DD}
52 EM_D[0]
51 EM_D[1]
50 DV_{DD}
49 EM_D[2]
48 EM_D[3]
47 V_{SS}
46 EM_D[4]
45 EM_D[5]
44 CV_{DD}
43 EM_D[6]
42 DV_{DD}
41 EM_D[7]
40 V_{SS}
39 EM_WE_DQM[0]
38 EM_WE
37 EM_CAS
1 V_{SS}
2 AHCLKX0/AHCLKX2
3 AMUTE0
4 AMUTE1
5 AHCLKX1
6 V_{SS}
7 ACLKX1
8 CV_{DD}
9 ACLKR1
10 DV_{DD}
11 AFSX1
12 AFSR1
13 V_{SS}
14 RESET
15 V_{SS}
16 CV_{DD}
17 CLKIN
18 V_{SS}
19 TMS
20 CV_{DD}
21 TRST
22 OSCV_{SS}
23 OSCIN
24 OSCOUT
25 OSCV_{DD}
26 V_{SS}
27 PLLHV
28 TDI
29 TDO
30 V_{SS}
31 DV_{DD}
32 EMU[0]
33 CV_{DD}
34 EMU[1]
35 TCK
36 V_{SS}

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -21

Q3501: D708E001BRFP266 (Audio DSP)

TERMINAL DESCRIPTION(1/3)

SIGNAL NAME	PIN NO.	TYPE(1)	PULL(2)	GPIO(3)	DESCRIPTION
External Memory Interface (EMIF) Address and Control					
EM_A[0]	91	O	-	N	EMIF Address Bus
EM_A[1]	89	O	-	N	
EM_A[2]	88	O	-	N	
EM_A[3]	86	O	-	N	
EM_A[4]	84	O	-	N	
EM_A[5]	83	O	-	N	
EM_A[6]	80	O	-	N	
EM_A[7]	79	O	-	N	
EM_A[8]	76	O	-	N	
EM_A[9]	75	O	-	N	
EM_A[10]	93	O	-	N	
EM_A[11]	74	O	-	N	
EM_BA[0]	96	O	-	N	SDRAM Bank Address and Asynchronous Memory Low-Order Address
EM_BA[1]	94	O	-	N	
$\overline{\text{EM\_CS[0]}}$	97	O	-	N	SDRAM Chip Select
$\overline{\text{EM\_CS[2]}}$	100	O	-	N	Asynchronous Memory Chip Select
$\overline{\text{EM\_CAS}}$	37	O	-	N	SDRAM Column Address Strobe
$\overline{\text{EM\_RAS}}$	98	O	-	N	SDRAM Row Address Strobe
$\overline{\text{EM\_WE}}$	38	O	-	N	SDRAM Write Enable
EM_CKE	71	O	-	N	SDRAM Clock Enable
EM_CLK	70	O	-	N	SDRAM Clock
EM_$\overline{\text{WE}}$_DQM[0]	39	O	-	N	Write Enable or Byte Enable for EM_D[7:0]
EM_$\overline{\text{WE}}$_DQM[1]	67	O	-	N	Write Enable or Byte Enable for EM_D[15:8]
$\overline{\text{EM\_OE}}$	104	O	-	N	SDRAM Output Enable
EM_R$\overline{\text{W}}$	102	O	-	N	Asynchronous Memory Read/not Write

(1) TYPE column refers to pin direction in functional mode. If a pin has more than one function with different directions, the functions are separated with a slash (/).

(2) PULL column:
IPD = Internal Pulldown resistor
IPU = Internal Pullup resistor

(3) If the GPIO column is 'Y', then in GPIO mode, the pin is configurable as an IO unless otherwise marked.

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -22

Q3501: D708E001BRFP266 (Audio DSP)

TERMINAL DESCRIPTION(2/3)

SIGNAL NAME	PIN NO.	TYPE(1)	PULL(2)	GPIO(3)	DESCRIPTION
McASP0, McASP1, McASP2, and SPI1 Serial Ports					
AHCLKR0/AHCLKR1	143	IO	-	Y	McASP0 and McASP1 Receive Master Clock
ACLKR0	139	IO	-	Y	McASP0 Receive Bit Clock
AFSR0	141	IO	-	Y	McASP0 Receive Frame Sync (L/R Clock)
AHCLKX0/AHCLKX2	2	IO	-	Y	McASP0 and McASP2 Transmit Master Clock
ACLKX0	142	IO	-	Y	McASP0 Transmit Bit Clock
AFSX0	144	IO	-	Y	McASP0 Transmit Frame Sync (L/R Clock)
AMUTE0	3	O	-	Y	McASP0 MUTE Output
AXR0[0]	113	IO	-	Y	McASP0 Serial Data 0
AXR0[1]	115	IO	-	Y	McASP0 Serial Data 1
AXR0[2]	116	IO	-	Y	McASP0 Serial Data 2
AXR0[3]	117	IO	-	Y	McASP0 Serial Data 3
AXR0[4]	119	IO	-	Y	McASP0 Serial Data 4
AXR0[5]/$\overline{\text{SPI1\_SCS}}$	120	IO	-	Y	McASP0 Serial Data 5 ***or*** SPI1 Slave Chip Select
AXR0[6]/$\overline{\text{SPI1\_ENA}}$	121	IO	-	Y	McASP0 Serial Data 6 ***or*** SPI1 Enable (Ready)
AXR0[7]/SPI1_CLK	122	IO	-	Y	McASP0 Serial Data 7 ***or*** SPI1 Serial Clock
AXR0[8]/AXR1[5]/ SPI1_SOMI	126	IO	-	Y	McASP0 Serial Data 8 ***or*** McASP1 Serial Data 5 ***or*** SPI1 Data Pin Slave Out Master In
AXR0[9]/AXR1[4]/ SPI1_SIMO	127	IO	-	Y	McASP0 Serial Data 9 ***or*** McASP1 Serial Data 4 ***or*** SPI1 Data Pin Slave In Master Out
AXR0[10]/AXR1[3]	130	IO	-	Y	McASP0 Serial Data 10 ***or*** McASP1 Serial Data 3
AXR0[11]/AXR1[2]	131	IO	-	Y	McASP0 Serial Data 11 ***or*** McASP1 Serial Data 2
AXR0[12]/AXR1[1]	134	IO	-	Y	McASP0 Serial Data 12 ***or*** McASP1 Serial Data 1
AXR0[13]/AXR1[0]	135	IO	-	Y	McASP0 Serial Data 13 ***or*** McASP1 Serial Data 0
AXR0[14]/AXR2[1]	137	IO	-	Y	McASP0 Serial Data 14 ***or*** McASP2 Serial Data 1
AXR0[15]/AXR2[0]	138	IO	-	Y	McASP0 Serial Data 15 ***or*** McASP2 Serial Data 0
ACLKR1	9	IO	-	Y	McASP1 Receive Bit Clock
AFSR1	12	IO	-	Y	McASP1 Receive Frame Sync (L/R Clock)
AHCLKX1	5	IO	-	Y	McASP1 Transmit Master Clock
ACLKX1	7	IO	-	Y	McASP1 Transmit Bit Clock
AFSX1	11	IO	-	Y	McASP1 Transmit Frame Sync (L/R Clock)
AMUTE1	4	O	-	Y	McASP1 MUTE Output
SPI0, I2C0, and I2C1 Serial Port Pins					
SPI0_SOMI/I2C0_SDA	111	IO	-	Y	SPI0 Data Pin Slave Out Master In ***or*** I2C0 Serial Data
SPI0_SIMO	110	IO	-	Y	SPI0 Data Pin Slave In Master Out
SPI0_CLK/I2C0_SCL	108	IO	-	Y	SPI0 Serial Clock ***or*** I2C0 Serial Clock
$\overline{\text{SPI0\_SCS}}$/I2C1_SCL	107	IO	-	Y	SPI0 Slave Chip Select ***or*** I2C1 Serial Clock
$\overline{\text{SPI0\_ENA}}$/I2C1_SDA	105	IO	-	Y	SPI0 Enable (Ready) ***or*** I2C1 Serial Data

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -23

Q3501: D708E001BRFP266 (Audio DSP)

TERMINAL DESCRIPTION(3/3)

SIGNAL NAME	PIN NO.	TYPE(1)	PULL(2)	GPIO(3)	DESCRIPTION
External Memory Interface (EMIF) Data Bus					
EM_D[0]	52	IO	-	N	EMIF Data Bus [Lower 16 Bits]
EM_D[1]	51	IO	-	N	
EM_D[2]	49	IO	-	N	
EM_D[3]	48	IO	-	N	
EM_D[4]	46	IO	-	N	
EM_D[5]	45	IO	-	N	
EM_D[6]	43	IO	-	N	
EM_D[7]	41	IO	-	N	
EM_D[8]	66	IO	-	N	
EM_D[9]	64	IO	-	N	
EM_D[10]	63	IO	-	N	
EM_D[11]	61	IO	-	N	
EM_D[12]	59	IO	-	N	
EM_D[13]	58	IO	-	N	
EM_D[14]	56	IO	-	N	
EM_D[15]	55	IO	-	N	

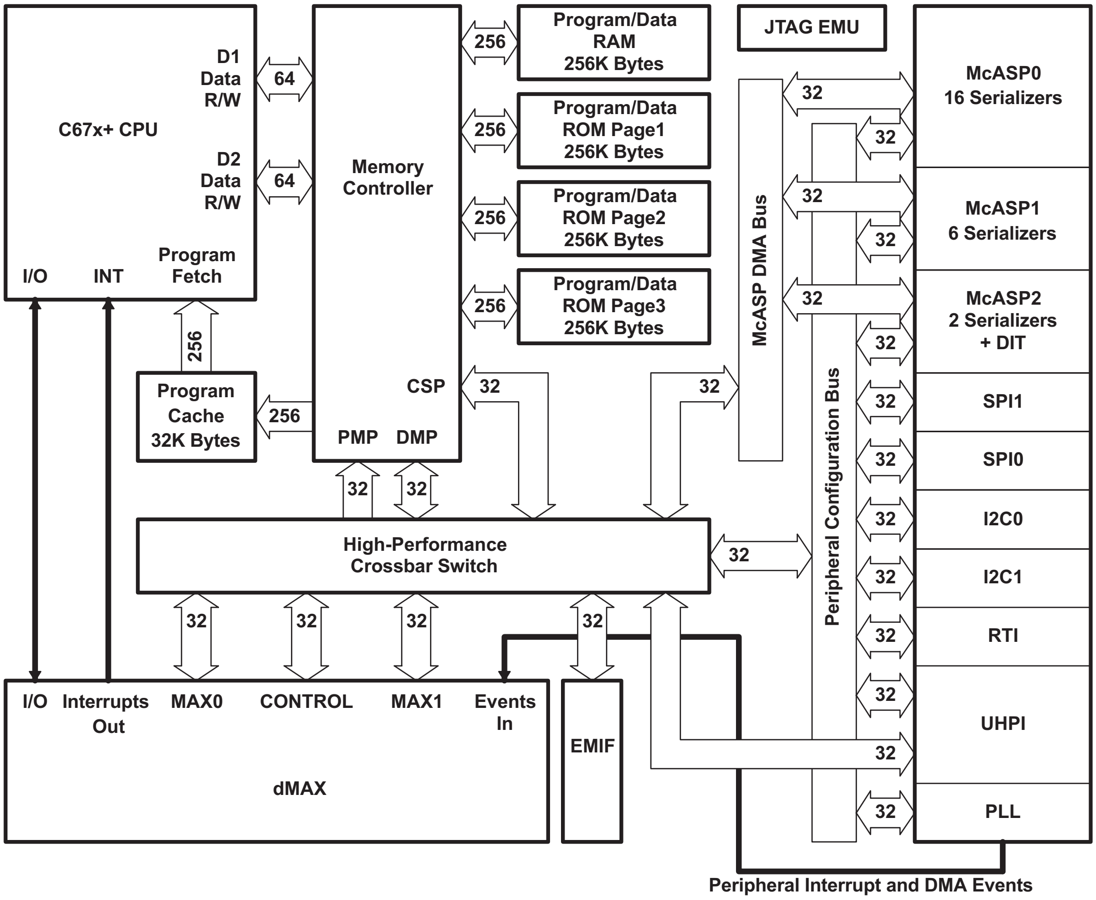
SIGNAL NAME	PIN NO.	TYPE(1)	PULL(2)	GPIO(3)	DESCRIPTION
Clocks					
OSCIN	23	I	-	N	1.2-V Oscillator Input
OSCOUT	24	O	-	N	1.2-V Oscillator Output
OSCV$_{DD}$	25	PWR	-	N	Oscillator 1.2-V V$_{DD}$ tap point (for filter only)
OSCV$_{SS}$	22	PWR	-	N	Oscillator V$_{SS}$ tap point (for filter only)
CLKIN	17	I	-	N	Alternate clock input (3.3-V LVCMOS Input)
PLLHV	27	PWR	-	N	PLL 3.3-V Supply Input (requires external filter)
Device Reset					
$\overline{\text{RESET}}$	14	I	-	N	Device reset pin
Emulation/JTAG Port					
TCK	35	I	IPU	N	Test Clock
TMS	19	I	IPU	N	Test Mode Select
TDI	28	I	IPU	N	Test Data In
TDO	29	OZ	IPU	N	Test Data Out
$\overline{\text{TRST}}$	21	I	IPD	N	Test Reset
$\overline{\text{EMU[0]}}$	32	IO	IPU	N	Emulation Pin 0
$\overline{\text{EMU[1]}}$	34	IO	IPU	N	Emulation Pin 1
Power Pins					
Core Supply (CV$_{DD}$)	8, 16, 20, 33, 44, 53, 57, 65, 77, 85, 90, 101, 123, 128, 132				
IO Supply (DV$_{DD}$)	10, 31, 42, 50, 60, 68, 73, 81, 92, 103, 112, 125, 136				
Ground (V$_{SS}$)	1, 6, 13, 15, 18, 26, 30, 36, 40, 47, 54, 62, 69, 72, 78, 82, 87, 95, 99, 106, 109, 114, 118, 124, 129, 133, 140				

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -24

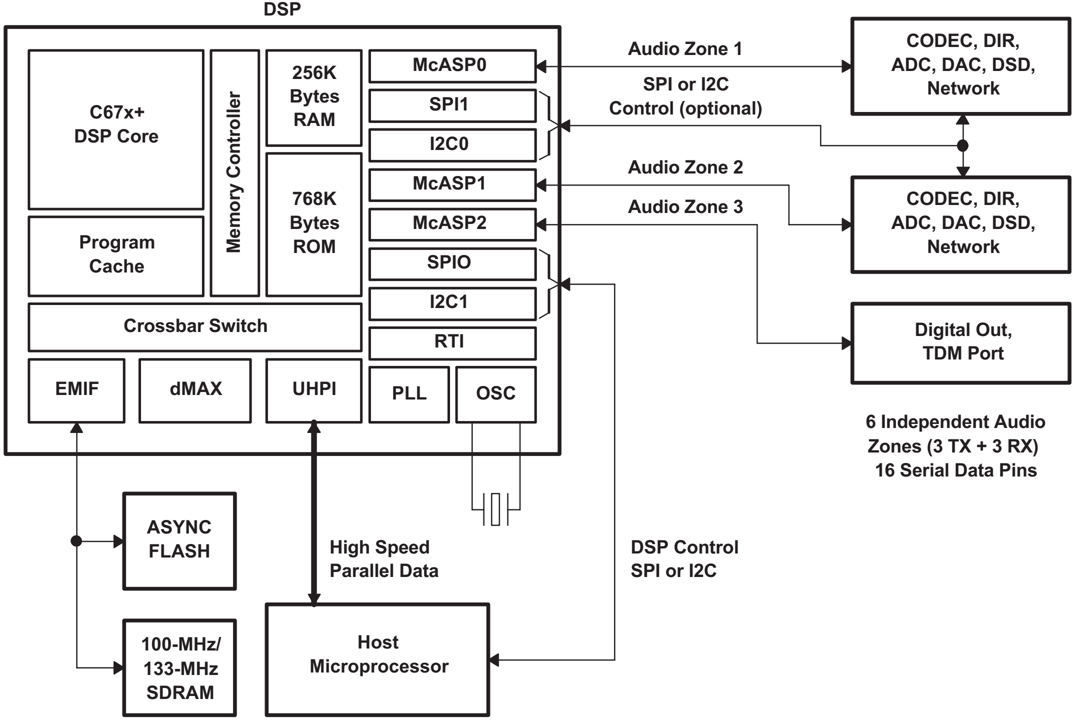
Q3401: D710E001BZDH275 (Audio DSP)

BLOCK DIAGRAM

Device Block Diagram


C67x+ CPU
D1 Data R/W
D2 Data R/W
64
64
I/O
INT
Program Fetch
256
Program Cache 32K Bytes
256
Memory Controller
CSP
PMP
DMP
32
32
256
256
256
256
Program/Data RAM 256K Bytes
Program/Data ROM Page1 256K Bytes
Program/Data ROM Page2 256K Bytes
Program/Data ROM Page3 256K Bytes
JTAG EMU
McASP DMA Bus
Peripheral Configuration Bus
McASP0 16 Serializers
McASP1 6 Serializers
McASP2 2 Serializers + DIT
SPI1
SPI0
I2C0
I2C1
RTI
UHPI
PLL
32
High-Performance Crossbar Switch
I/O
Interrupts Out
MAX0
CONTROL
MAX1
Events In
dMAX
EMIF
Peripheral Interrupt and DMA Events

System Diagram


DSP
C67x+ DSP Core
Program Cache
Memory Controller
256K Bytes RAM
768K Bytes ROM
McASP0
SPI1
I2C0
McASP1
McASP2
SPIO
I2C1
RTI
Crossbar Switch
EMIF
dMAX
UHPI
PLL
OSC
Audio Zone 1
SPI or I2C Control (optional)
Audio Zone 2
Audio Zone 3
CODEC, DIR, ADC, DAC, DSD, Network
CODEC, DIR, ADC, DAC, DSD, Network
Digital Out, TDM Port
ASYNC FLASH
100-MHz/ 133-MHz SDRAM
High Speed Parallel Data
Host Microprocessor
DSP Control SPI or I2C

6 Independent Audio Zones (3 TX + 3 RX) 16 Serial Data Pins

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -25

Q3401: D710E001BZDH275 (Audio DSP)

PIN CONFIGURATION(1/2)

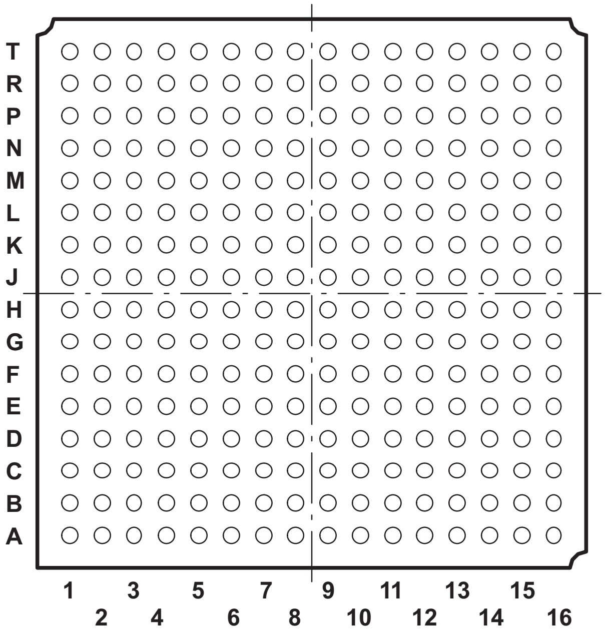
PIN MAP

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
T	V_{SS}	DV_{DD}	$\overline{\text{EM\_WE}}$	EM_D[7]	EM_D[5]	EM_D[3]	V_{SS}	EM_D[0]	EM_D[14]	V_{SS}	EM_D[11]	EM_D[9]	EM_$\overline{\text{WE}}$_DQM[1]	EM_CKE	DV_{DD}	V_{SS}
R	DV_{DD}	EM_D[23]/UHPI_HA[7]	$\overline{\text{EM\_CAS}}$	EM_$\overline{\text{WE}}$_DQM[0]	EM_D[6]	EM_D[4]	EM_D[2]	EM_D[1]	EM_D[15]	EM_D[13]	EM_D[12]	EM_D[10]	EM_D[8]	EM_CLK	EM_$\overline{\text{WE}}$_DQM[3]	DV_{DD}
P	TCK	UHPI_HD[24]	EM_D[21]/UHPI_HA[5]	EM_D[20]/UHPI_HA[4]	EM_D[19]/UHPI_HA[3]	EM_D[17]/UHPI_HA[1]	EM_D[31]/UHPI_HA[15]	DV_{DD}	EM_D[28]/UHPI_HA[12]	EM_D[26]/UHPI_HA[10]	EM_D[24]/UHPI_HA[8]	EM_A[12]	EM_$\overline{\text{WE}}$_DQM[2]	UHPI_HD[7]	EM_A[11]	EM_A[9]
N	$\overline{\text{EMU[1]}}$	UHPI_HD[25]	UHPI_HD[26]	EM_D[22]/UHPI_HA[6]	DV_{DD}	EM_D[18]/UHPI_HA[2]	EM_D[16]/UHPI_HA[0]	EM_D[30]/UHPI_HA[14]	EM_D[29]/UHPI_HA[13]	EM_D[27]/UHPI_HA[11]	EM_D[25]/UHPI_HA[9]	DV_{DD}	UHPI_HD[5]	UHPI_HD[6]	EM_A[8]	EM_A[7]
M	$\overline{\text{EMU[0]}}$	TDO	UHPI_HD[27]	DV_{DD}	V_{SS}	CV_{DD}	CV_{DD}	CV_{DD}	CV_{DD}	CV_{DD}	CV_{DD}	V_{SS}	DV_{DD}	UHPI_HD[2]	EM_A[6]	EM_A[5]
L	TDI	UHPI_HD[30]	UHPI_HD[28]	UHPI_HD[29]	V_{SS}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	UHPI_HD[3]	UHPI_HD[4]	EM_A[4]	EM_A[3]
K	V_{SS}	PLLHV	TMS	$\overline{\text{TRST}}$	CV_{DD}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	CV_{DD}	UHPI_HD[0]	UHPI_HD[1]	EM_A[2]	V_{SS}
J	$OSCV_{SS}$	OSCIN	OSCOUT	$OSCV_{DD}$	CV_{DD}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	CV_{DD}	UHPI_HD[15]	DV_{DD}	EM_A[1]	EM_A[0]
H	UHPI_HD[16]/HHWIL	CLKIN	V_{SS}	UHPI_HD[31]	CV_{DD}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	CV_{DD}	UHPI_HD[14]	UHPI_HD[13]	EM_A[10]	EM_BA[1]
G	V_{SS}	$\overline{\text{RESET}}$	UHPI_HD[17]	UHPI_HD[18]	CV_{DD}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	CV_{DD}	UHPI_HD[12]	UHPI_HD[11]	EM_BA[0]	V_{SS}
F	AFSR1	AFSX1	UHPI_HD[19]	UHPI_HD[20]	V_{SS}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	V_{SS}	UHPI_HD[10]	UHPI_HD[9]	$\overline{\text{EM\_CS[0]}}$	$\overline{\text{EM\_RAS}}$
E	ACLKR1	ACLKX1	UHPI_HD[21]	DV_{DD}	V_{SS}	CV_{DD}	CV_{DD}	CV_{DD}	CV_{DD}	CV_{DD}	CV_{DD}	V_{SS}	DV_{DD}	UHPI_HD[8]	$\overline{\text{EM\_CS[2]}}$	EM_R$\overline{\text{W}}$
D	AHCLKX1	AMUTE1	UHPI_HD[22]	DV_{DD}	DV_{DD}	$\overline{\text{UHPI\_HRDY}}$	$\overline{\text{UHPI\_HDS[1]}}$	UHPI_HR$\overline{\text{W}}$	UHPI_HCNTL[0]	AMUTE2/$\overline{\text{HINT}}$	ACLKX2	DV_{DD}	DV_{DD}	EM_WAIT	$\overline{\text{EM\_OE}}$	$\overline{\text{SPI0\_ENA}}$/I2C1_SDA
C	AMUTE0	AHCLKX0/AHCLKX2	UHPI_HD[23]	$\overline{\text{UHPI\_HBE[2]}}$	$\overline{\text{UHPI\_HBE[1]}}$	$\overline{\text{UHPI\_HBE[0]}}$	$\overline{\text{UHPI\_HDS[2]}}$	$\overline{\text{UHPI\_HCS}}$	$\overline{\text{UHPI\_HAS}}$	UHPI_HCNTL[1]	AFSX2	AFSR2	ACLKR2	AHCLKR2	$\overline{\text{SPI0\_SCS}}$/I2C1_SCL	SPI0_CLK/I2C0_SCL
B	DV_{DD}	$\overline{\text{UHPI\_HBE[3]}}$	AHCLKR0/AHCLKR1	AFSR0	AXR0[15]/AXR2[0]	AXR0[13]/AXR1[0]	AXR0[12]/AXR1[1]	AXR0[10]/AXR1[3]	AXR0[8]/AXR1[5]/SPI1_SOMI	AXR0[7]/SPI1_CLK	AXR0[5]/$\overline{\text{SPI1\_SCS}}$	AXR0[3]	AXR0[1]	SPI0_SOMI/I2C0_SDA	SPI0_SIMO	DV_{DD}
A	V_{SS}	DV_{DD}	AFSX0	ACLKX0	ACLKR0	AXR0[14]/AXR2[1]	V_{SS}	AXR0[11]/AXR1[2]	AXR0[9]/AXR1[4]/SPI1_SIMO	V_{SS}	AXR0[6]/$\overline{\text{SPI1\_ENA}}$	AXR0[4]	AXR0[2]	AXR0[0]	DV_{DD}	V_{SS}

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -26

Q3401: D710E001BZDH275 (Audio DSP)

PIN CONFIGURATION(2/2)



Bottom View

TERMINAL DESCRIPTION(1/5)

SIGNAL NAME	BALL NO.	TYPE(1)	PULL(2)	GPIO(3)	DESCRIPTION
Clocks					
OSCIN	J2	I	-	N	1.2-V Oscillator Input
OSCOUT	J3	O	-	N	1.2-V Oscillator Output
OSCV$_{DD}$	J4	PWR	-	N	Oscillator 1.2-V V$_{DD}$ tap point (for filter only)
OSCV$_{SS}$	J1	PWR	-	N	Oscillator V$_{SS}$ tap point (for filter only)
CLKIN	H2	I	-	N	Alternate clock input (3.3-V LVCMOS Input)
PLLHV	K2	PWR	-	N	PLL 3.3-V Supply Input (requires external filter)
Device Reset					
$\overline{\text{RESET}}$	G2	I	-	N	Device reset pin
Emulation/JTAG Port					
TCK	P1	I	IPU	N	Test Clock
TMS	K3	I	IPU	N	Test Mode Select
TDI	L1	I	IPU	N	Test Data In
TDO	M2	OZ	IPU	N	Test Data Out
$\overline{\text{TRST}}$	K4	I	IPD	N	Test Reset
$\overline{\text{EMU[0]}}$	M1	IO	IPU	N	Emulation Pin 0
$\overline{\text{EMU[1]}}$	N1	IO	IPU	N	Emulation Pin 1
Power Pins					
Core Supply (CV$_{DD}$)	E6, E7, E8, E9, E10, E11, G5, G12, H5, H12, J5, J12, K5, K12, M6, M7, M8, M9, M10, M11				
IO Supply (DV$_{DD}$)	A2, A15, B1, B16, D4, D5, D12, D13, E4, E13, J14, M4, M13, N5, N12, P8, R1, R16, T2, T15				
Ground (V$_{SS}$)	A1, A7, A10, A16, E5, E12, F5, F6, F7, F8, F9, F10, F11, F12, G1, G6, G7, G8, G9, G10, G11, G16, H3, H6, H7, H8, H9, H10, H11, J6, J7, J8, J9, J10, J11, K1, K6, K7, K8, K9, K10, K11, K16, L5, L6, L7, L8, L9, L10, L11, L12, M5, M12, T1, T7, T10, T16				

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -27

Q3401: D710E001BZDH275 (Audio DSP)

TERMINAL DESCRIPTION(2/5)

SIGNAL NAME	BALL NO.	TYPE(1)	PULL(2)	GPIO(3)	DESCRIPTION
External Memory Interface (EMIF) Address and Control					
EM_A[0]	J16	O	-	N	EMIF Address Bus
EM_A[1]	J15	O	-	N	
EM_A[2]	K15	O	-	N	
EM_A[3]	L16	O	-	N	
EM_A[4]	L15	O	-	N	
EM_A[5]	M16	O	-	N	
EM_A[6]	M15	O	-	N	
EM_A[7]	N16	O	-	N	
EM_A[8]	N15	O	-	N	
EM_A[9]	P16	O	-	N	
EM_A[10]	H15	O	-	N	
EM_A[11]	P15	O	-	N	
EM_A[12]	P12	O	IPD	N	
EM_BA[0]	G15	O	-	N	SDRAM Bank Address and Asynchronous Memory Low-Order Address
EM_BA[1]	H16	O	-	N	
EM_CS[0]	F15	O	-	N	SDRAM Chip Select
EM_CS[2]	E15	O	-	N	Asynchronous Memory Chip Select
EM_CAS	R3	O	-	N	SDRAM Column Address Strobe
EM_RAS	F16	O	-	N	SDRAM Row Address Strobe
EM_WE	T3	O	-	N	SDRAM Write Enable
EM_CKE	T14	O	-	N	SDRAM Clock Enable
EM_CLK	R14	O	-	N	SDRAM Clock
EM_WE_DQM[0]	R4	O	-	N	Write Enable or Byte Enable for EM_D[7:0]
EM_WE_DQM[1]	T13	O	-	N	Write Enable or Byte Enable for EM_D[15:8]
EM_WE_DQM[2]	P13	O	IPU	N	Write Enable or Byte Enable for EM_D[23:16]
EM_WE_DQM[3]	R15	O	IPU	N	Write Enable or Byte Enable for EM_D[31:24]
EM_OE	D15	O	-	N	SDRAM Output Enable
EM_RW	E16	O	-	N	Asynchronous Memory Read/not Write
EM_WAIT	D14	I	IPU	N	Asynchronous Wait Input (*Programmable Polarity*) or Interrupt (*NAND*)

(1) TYPE column refers to pin direction in functional mode. If a pin has more than one function with different directions, the functions are separated with a slash (/).

(2) PULL column:
IPD = Internal Pulldown resistor
IPU = Internal Pullup resistor

(3) If the GPIO column is 'Y', then in GPIO mode, the pin is configurable as an IO unless otherwise marked.

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -28

Q3401: D710E001BZDH275 (Audio DSP)

TERMINAL DESCRIPTION(3/5)

SIGNAL NAME	BALL NO.	TYPE (1)	PULL (2)	GPIO (3)	DESCRIPTION
External Memory Interface (EMIF) Data Bus / Universal Host-Port Interface (UHPI) Address Bus Option					
EM_D[0]	T8	IO	-	N	EMIF Data Bus [Lower 16 Bits]
EM_D[1]	R8	IO	-	N	
EM_D[2]	R7	IO	-	N	
EM_D[3]	T6	IO	-	N	
EM_D[4]	R6	IO	-	N	
EM_D[5]	T5	IO	-	N	
EM_D[6]	R5	IO	-	N	
EM_D[7]	T4	IO	-	N	
EM_D[8]	R13	IO	-	N	
EM_D[9]	T12	IO	-	N	
EM_D[10]	R12	IO	-	N	
EM_D[11]	T11	IO	-	N	
EM_D[12]	R11	IO	-	N	
EM_D[13]	R10	IO	-	N	
EM_D[14]	T9	IO	-	N	
EM_D[15]	R9	IO	-	N	
EM_D[16]/UHPI_HA[0]	N7	IO/I	IPD	N	EMIF Data Bus [Upper 16 Bits (IO)] ***or*** UHPI Address Input (I)
EM_D[17]/UHPI_HA[1]	P6	IO/I	IPD	N	
EM_D[18]/UHPI_HA[2]	N6	IO/I	IPD	N	
EM_D[19]/UHPI_HA[3]	P5	IO/I	IPD	N	
EM_D[20]/UHPI_HA[4]	P4	IO/I	IPD	N	
EM_D[21]/UHPI_HA[5]	P3	IO/I	IPD	N	
EM_D[22]/UHPI_HA[6]	N4	IO/I	IPD	N	
EM_D[23]/UHPI_HA[7]	R2	IO/I	IPD	N	
EM_D[24]/UHPI_HA[8]	P11	IO/I	IPD	N	
EM_D[25]/UHPI_HA[9]	N11	IO/I	IPD	N	
EM_D[26]/UHPI_HA[10]	P10	IO/I	IPD	N	
EM_D[27]/UHPI_HA[11]	N10	IO/I	IPD	N	
EM_D[28]/UHPI_HA[12]	P9	IO/I	IPD	N	
EM_D[29]/UHPI_HA[13]	N9	IO/I	IPD	N	
EM_D[30]/UHPI_HA[14]	N8	IO/I	IPD	N	
EM_D[31]/UHPI_HA[15]	P7	IO/I	IPD	N	

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -29

Q3401: D710E001BZDH275 (Audio DSP)

TERMINAL DESCRIPTION(4/5)

SIGNAL NAME	BALL NO.	TYPE$^{(1)}$	PULL$^{(2)}$	GPIO$^{(3)}$	DESCRIPTION
Universal Host-Port Interface (UHPI) Data and Control					
UHPI_HD[0]	K13	IO	IPD	Y	UHPI Data Bus [Lower 16 Bits]
UHPI_HD[1]	K14	IO	IPD	Y	
UHPI_HD[2]	M14	IO	IPD	Y	
UHPI_HD[3]	L13	IO	IPD	Y	
UHPI_HD[4]	L14	IO	IPD	Y	
UHPI_HD[5]	N13	IO	IPD	Y	
UHPI_HD[6]	N14	IO	IPD	Y	
UHPI_HD[7]	P14	IO	IPD	Y	
UHPI_HD[8]	E14	IO	IPD	Y	
UHPI_HD[9]	F14	IO	IPD	Y	
UHPI_HD[10]	F13	IO	IPD	Y	
UHPI_HD[11]	G14	IO	IPD	Y	
UHPI_HD[12]	G13	IO	IPD	Y	
UHPI_HD[13]	H14	IO	IPD	Y	
UHPI_HD[14]	H13	IO	IPD	Y	
UHPI_HD[15]	J13	IO	IPD	Y	
UHPI_HD[16]/HHWIL	H1	IO/I	IPD	Y	UHPI Data Bus [Upper 16 Bits (IO)] in the following modes: • Fullword Multiplexed Address and Data • Fullword Non-Multiplexed UHPI_HHWIL (I) on pin UHPI_HD[16]/HHWIL and GPIO on other pins in the following mode: • Half-word Multiplexed Address and Data In this mode, UHPI_HHWIL indicates whether the high or low half-word is being addressed.
UHPI_HD[17]	G3	IO	IPD	Y	
UHPI_HD[18]	G4	IO	IPD	Y	
UHPI_HD[19]	F3	IO	IPD	Y	
UHPI_HD[20]	F4	IO	IPD	Y	
UHPI_HD[21]	E3	IO	IPD	Y	
UHPI_HD[22]	D3	IO	IPD	Y	
UHPI_HD[23]	C3	IO	IPD	Y	
UHPI_HD[24]	P2	IO	IPD	Y	
UHPI_HD[25]	N2	IO	IPD	Y	
UHPI_HD[26]	N3	IO	IPD	Y	
UHPI_HD[27]	M3	IO	IPD	Y	
UHPI_HD[28]	L3	IO	IPD	Y	
UHPI_HD[29]	L4	IO	IPD	Y	
UHPI_HD[30]	L2	IO	IPD	Y	
UHPI_HD[31]	H4	IO	IPD	Y	
Universal Host-Port Interface (UHPI) Control					
$\overline{\text{UHPI\_HBE[0]}}$	C6	I	IPD	Y	UHPI Byte Enable for UHPI_HD[7:0]
$\overline{\text{UHPI\_HBE[1]}}$	C5	I	IPD	Y	UHPI Byte Enable for UHPI_HD[15:8]
$\overline{\text{UHPI\_HBE[2]}}$	C4	I	IPD	Y	UHPI Byte Enable for UHPI_HD[23:16]
$\overline{\text{UHPI\_HBE[3]}}$	B2	I	IPD	Y	UHPI Byte Enable for UHPI_HD[31:24]
UHPI_HCNTL[0]	D9	I	IPD	Y	UHPI Control Inputs Select Access Mode
UHPI_HCNTL[1]	C10	I	IPD	Y	
$\overline{\text{UHPI\_HAS}}$	C9	I	IPD	Y	UHPI Host Address Strobe for Hosts with Multiplexed Address/Data bus
UHPI_HR$\overline{\text{W}}$	D8	I	IPD	Y	UHPI Read/not Write Input
$\overline{\text{UHPI\_HDS[1]}}$	D7	I	IPU	Y	UHPI Select Signals which create the internal $\overline{\text{HSTROBE}}$ active when: ($\overline{\text{UHPI\_HCS}}$ == '0') & ($\overline{\text{UHPI\_HDS[1]}}$!= $\overline{\text{UHPI\_HDS[2]}}$)
$\overline{\text{UHPI\_HDS[2]}}$	C7	I	IPU	Y	
$\overline{\text{UHPI\_HCS}}$	C8	I	IPU	Y	
$\overline{\text{UHPI\_HRDY}}$	D6	O	IPD	Y	UHPI Ready Output

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -30

Q3401: D710E001BZDH275 (Audio DSP)

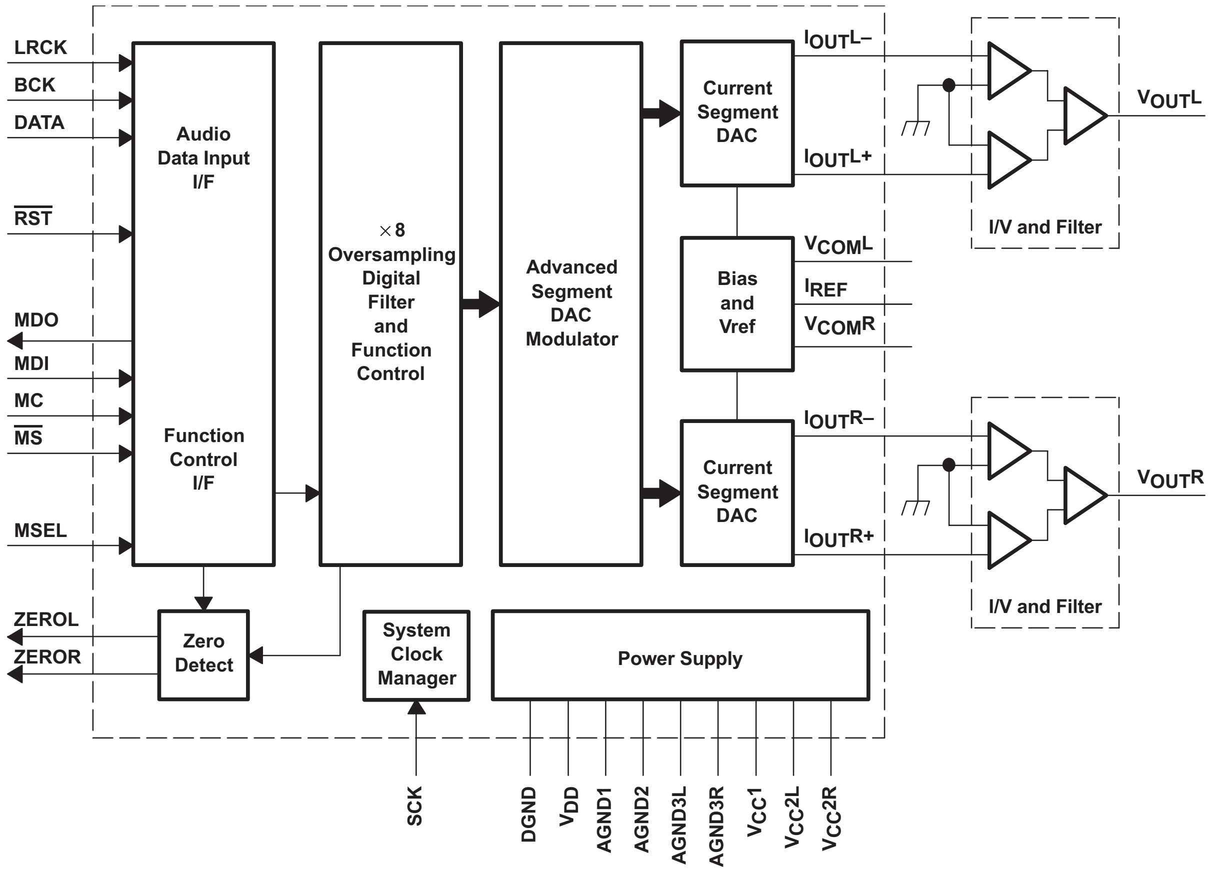
TERMINAL DESCRIPTION(5/5)

SIGNAL NAME	BALL NO.	TYPE[(1)]	PULL[(2)]	GPIO[(3)]	DESCRIPTION
McASP0, McASP1, McASP2, and SPI1 Serial Ports					
AHCLKR0/AHCLKR1	B3	IO	-	Y	McASP0 and McASP1 Receive Master Clock
ACLKR0	A5	IO	-	Y	McASP0 Receive Bit Clock
AFSR0	B4	IO	-	Y	McASP0 Receive Frame Sync (L/R Clock)
AHCLKX0/AHCLKX2	C2	IO	-	Y	McASP0 and McASP2 Transmit Master Clock
ACLKX0	A4	IO	-	Y	McASP0 Transmit Bit Clock
AFSX0	A3	IO	-	Y	McASP0 Transmit Frame Sync (L/R Clock)
AMUTE0	C1	O	-	Y	McASP0 MUTE Output
AXR0[0]	A14	IO	-	Y	McASP0 Serial Data 0
AXR0[1]	B13	IO	-	Y	McASP0 Serial Data 1
AXR0[2]	A13	IO	-	Y	McASP0 Serial Data 2
AXR0[3]	B12	IO	-	Y	McASP0 Serial Data 3
AXR0[4]	A12	IO	-	Y	McASP0 Serial Data 4
AXR0[5]/$\overline{\text{SPI1\_SCS}}$	B11	IO	-	Y	McASP0 Serial Data 5 ***or*** SPI1 Slave Chip Select
AXR0[6]/$\overline{\text{SPI1\_ENA}}$	A11	IO	-	Y	McASP0 Serial Data 6 ***or*** SPI1 Enable (Ready)
AXR0[7]/SPI1_CLK	B10	IO	-	Y	McASP0 Serial Data 7 ***or*** SPI1 Serial Clock
AXR0[8]/AXR1[5]/ SPI1_SOMI	B9	IO	-	Y	McASP0 Serial Data 8 ***or*** McASP1 Serial Data 5 ***or*** SPI1 Data Pin Slave Out Master In
AXR0[9]/AXR1[4]/ SPI1_SIMO	A9	IO	-	Y	McASP0 Serial Data 9 ***or*** McASP1 Serial Data 4 ***or*** SPI1 Data Pin Slave In Master Out
AXR0[10]/AXR1[3]	B8	IO	-	Y	McASP0 Serial Data 10 ***or*** McASP1 Serial Data 3
AXR0[11]/AXR1[2]	A8	IO	-	Y	McASP0 Serial Data 11 ***or*** McASP1 Serial Data 2
AXR0[12]/AXR1[1]	B7	IO	-	Y	McASP0 Serial Data 12 ***or*** McASP1 Serial Data 1
AXR0[13]/AXR1[0]	B6	IO	-	Y	McASP0 Serial Data 13 ***or*** McASP1 Serial Data 0
AXR0[14]/AXR2[1]	A6	IO	-	Y	McASP0 Serial Data 14 ***or*** McASP2 Serial Data 1
AXR0[15]/AXR2[0]	B5	IO	-	Y	McASP0 Serial Data 15 ***or*** McASP2 Serial Data 0
ACLKR1	E1	IO	-	Y	McASP1 Receive Bit Clock
AFSR1	F1	IO	-	Y	McASP1 Receive Frame Sync (L/R Clock)
AHCLKX1	D1	IO	-	Y	McASP1 Transmit Master Clock
ACLKX1	E2	IO	-	Y	McASP1 Transmit Bit Clock
AFSX1	F2	IO	-	Y	McASP1 Transmit Frame Sync (L/R Clock)
AMUTE1	D2	O	-	Y	McASP1 MUTE Output
AHCLKR2	C14	IO	IPD	Y	McASP2 Receive Master Clock
ACLKR2	C13	IO	IPD	Y	McASP2 Receive Bit Clock
AFSR2	C12	IO	IPD	Y	McASP2 Receive Frame Sync (L/R Clock)
ACLKX2	D11	IO	IPD	Y	McASP2 Transmit Bit Clock
AFSX2	C11	IO	IPD	Y	McASP2 Transmit Frame Sync (L/R Clock)
AMUTE2/$\overline{\text{HINT}}$	D10	O	IPD	Y	McASP2 MUTE Output ***or*** UHPI Host Interrupt
SPI0, I2C0, and I2C1 Serial Port Pins					
SPI0_SOMI/I2C0_SDA	B14	IO	-	Y	SPI0 Data Pin Slave Out Master In ***or*** I2C0 Serial Data
SPI0_SIMO	B15	IO	-	Y	SPI0 Data Pin Slave In Master Out
SPI0_CLK/I2C0_SCL	C16	IO	-	Y	SPI0 Serial Clock ***or*** I2C0 Serial Clock
$\overline{\text{SPI0\_SCS}}$/I2C1_SCL	C15	IO	-	Y	SPI0 Slave Chip Select ***or*** I2C1 Serial Clock
$\overline{\text{SPI0\_ENA}}$/I2C1_SDA	D16	IO	-	Y	SPI0 Enable (Ready) ***or*** I2C1 Serial Data

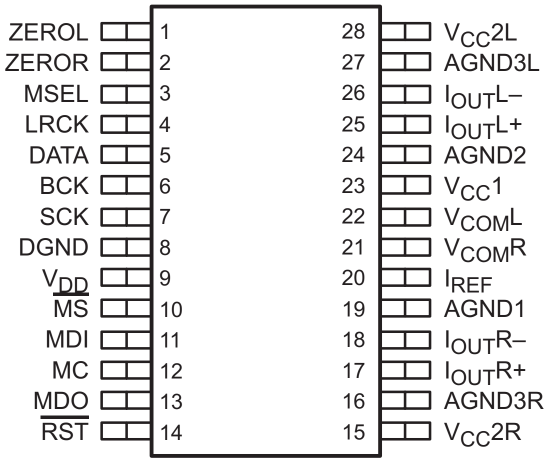
IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -31

Q3701,Q3721,Q3741,Q3761,Q3781: PCM1796DBR (24 bit, 192 kHz, 2ch DAC)

BLOCK DIAGRAM


LRCK
BCK
DATA
RST
MDO
MDI
MC
MS
MSEL
ZEROL
ZEROR
Audio Data Input I/F
Function Control I/F
×8 Oversampling Digital Filter and Function Control
Advanced Segment DAC Modulator
Current Segment DAC
Bias and Vref
Current Segment DAC
Zero Detect
System Clock Manager
Power Supply
IOUTL–
IOUTL+
VCOML
IREF
VCOMR
IOUTR–
IOUTR+
I/V and Filter
VOUTL
I/V and Filter
VOUTR
SCK
DGND
VDD
AGND1
AGND2
AGND3L
AGND3R
VCC1
VCC2L
VCC2R

PIN CONFIGURATION


ZEROL 1
ZEROR 2
MSEL 3
LRCK 4
DATA 5
BCK 6
SCK 7
DGND 8
VDD 9
MS 10
MDI 11
MC 12
MDO 13
RST 14
28 VCC2L
27 AGND3L
26 IOUTL–
25 IOUTL+
24 AGND2
23 VCC1
22 VCOML
21 VCOMR
20 IREF
19 AGND1
18 IOUTR–
17 IOUTR+
16 AGND3R
15 VCC2R

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -32

Q3701,Q3721,Q3741,Q3761,Q3781: PCM1796DBR (24 bit, 192 kHz, 2ch DAC)

TERMINAL DESCRIPTION

TERMINAL		I/O	DESCRIPTIONS
NAME	PIN		
AGND1	19	–	Analog ground (internal bias)
AGND2	24	–	Analog ground (internal bias)
AGND3L	27	–	Analog ground (L-channel DACFF)
AGND3R	16	–	Analog ground (R-channel DACFF)
BCK	6	I	Bit clock input(1)
DATA	5	I	Serial audio data input(1)
DGND	8	–	Digital ground
I_{OUT}L+	25	O	L-channel analog current output+
I_{OUT}L–	26	O	L-channel analog current output–
I_{OUT}R+	17	O	R-channel analog current output+
I_{OUT}R–	18	O	R-channel analog current output–
I_{REF}	20	–	Output current reference bias pin
LRCK	4	I	Left and right clock (f_S) input(1)
MC	12	I	Mode control clock input(1)
MDI	11	I	Mode control data input(1)
MDO	13	I/O	Mode control readback data output(3)
$\overline{MS}$	10	I/O	Mode control chip-select input(2)
MSEL	3	I	I^2C/$\overline{SPI}$ select(1)
$\overline{RST}$	14	I	Reset(1)
SCK	7	I	System clock input(1)
V_{CC}1	23	–	Analog power supply, 5 V
V_{CC}2L	28	–	Analog power supply (L-channel DACFF), 5 V
V_{CC}2R	15	–	Analog power supply (R-channel DACFF), 5 V
V_{COM}L	22	–	L-channel internal bias decoupling pin
V_{COM}R	21	–	R-channel internal bias decoupling pin
V_{DD}	9	–	Digital power supply, 3.3 V
ZEROL	1	I/O	Zero flag for L-channel(2)
ZEROR	2	I/O	Zero flag for R-channel(2)

(1) Schmitt-trigger input, 5-V tolerant

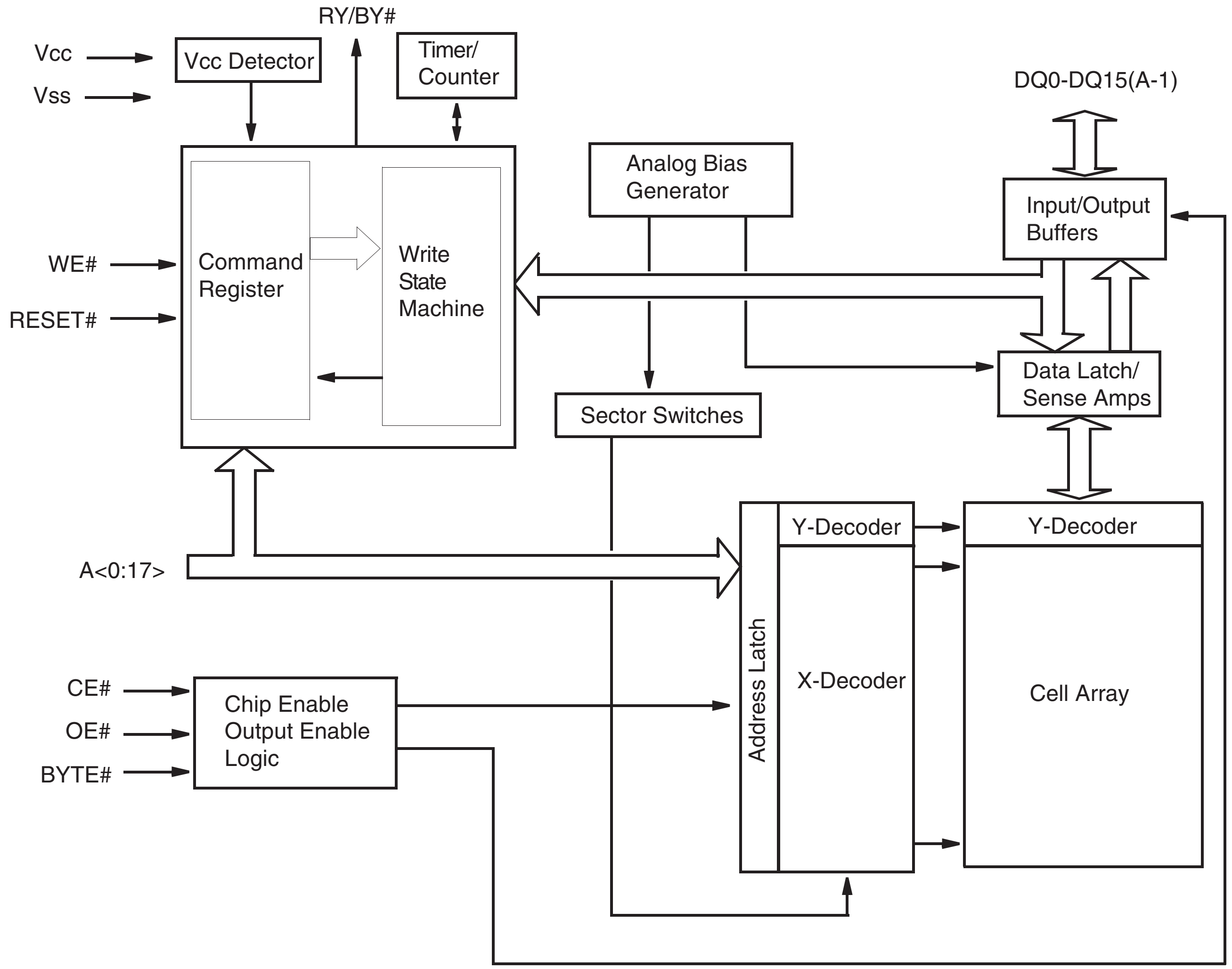
(2) Schmitt-trigger input and output. 5-V tolerant input and CMOS output

(3) Schmitt-trigger input and output. 5-V tolerant input. In I^2C mode, this pin becomes an open-drain 3-state output; otherwise, this pin is a CMOS output.

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -33

Q3551 : ES29LV400ET-70TG (4 Mbit Flash Memory)

BLOCK DIAGRAM

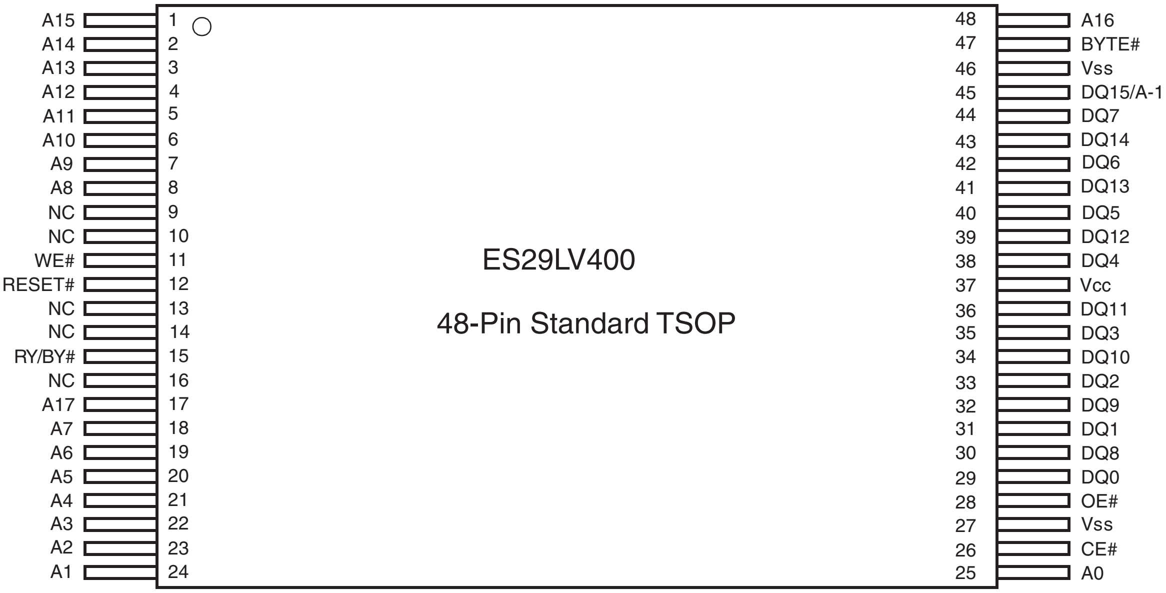


RY/BY#
Vcc
Vss
Vcc Detector
Timer/ Counter
DQ0-DQ15(A-1)
Analog Bias Generator
Input/Output Buffers
WE#
RESET#
Command Register
Write State Machine
Data Latch/ Sense Amps
Sector Switches
A<0:17>
Y-Decoder
Y-Decoder
Address Latch
X-Decoder
Cell Array
CE#
OE#
BYTE#
Chip Enable Output Enable Logic

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -34

Q3551 : ES29LV400ET-70TG (4 Mbit Flash Memory)

PIN CONFIGURATION


A15
A14
A13
A12
A11
A10
A9
A8
NC
NC
WE#
RESET#
NC
NC
RY/BY#
NC
A17
A7
A6
A5
A4
A3
A2
A1
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
ES29LV400
48-Pin Standard TSOP
48
47
46
45
44
43
42
41
40
39
38
37
36
35
34
33
32
31
30
29
28
27
26
25
A16
BYTE#
Vss
DQ15/A-1
DQ7
DQ14
DQ6
DQ13
DQ5
DQ12
DQ4
Vcc
DQ11
DQ3
DQ10
DQ2
DQ9
DQ1
DQ8
DQ0
OE#
Vss
CE#
A0

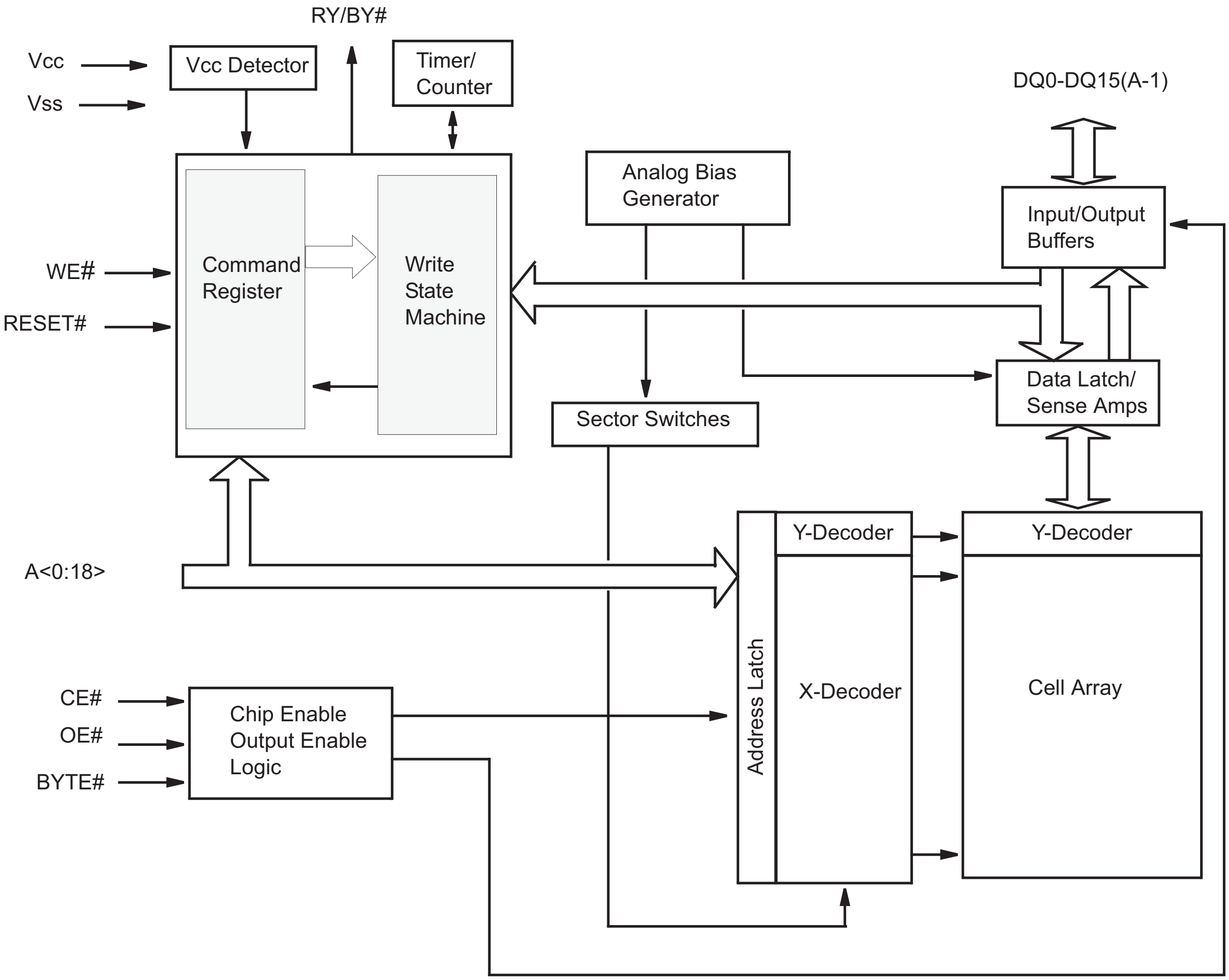
TERMINAL DESCRIPTION

Terminal	Description
A0-A17	18 Addresses
DQ0-DQ14	15 Data Inputs/Outputs
DQ15/A-1	DQ15 (Data Input/Output, Word Mode) A-1 (LSB Address Input, Byte Mode)
CE#	Chip Enable
OE#	Output Enable
WE#	Write Enable
RESET#	Hardware Reset Pin, Active Low
BYTE#	Selects 8-bit or 16-bit mode
RY/BY#	Ready/Busy Output
Vcc	3.0 volt-only single power supply (see Product Selector Guide for speed options and voltage supply tolerances)
Vss	Device Ground
NC	Pin Not Connected Internally

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -35

Q3651 : ES29LV800ET-70TG (8 Mbit Flash Memory)

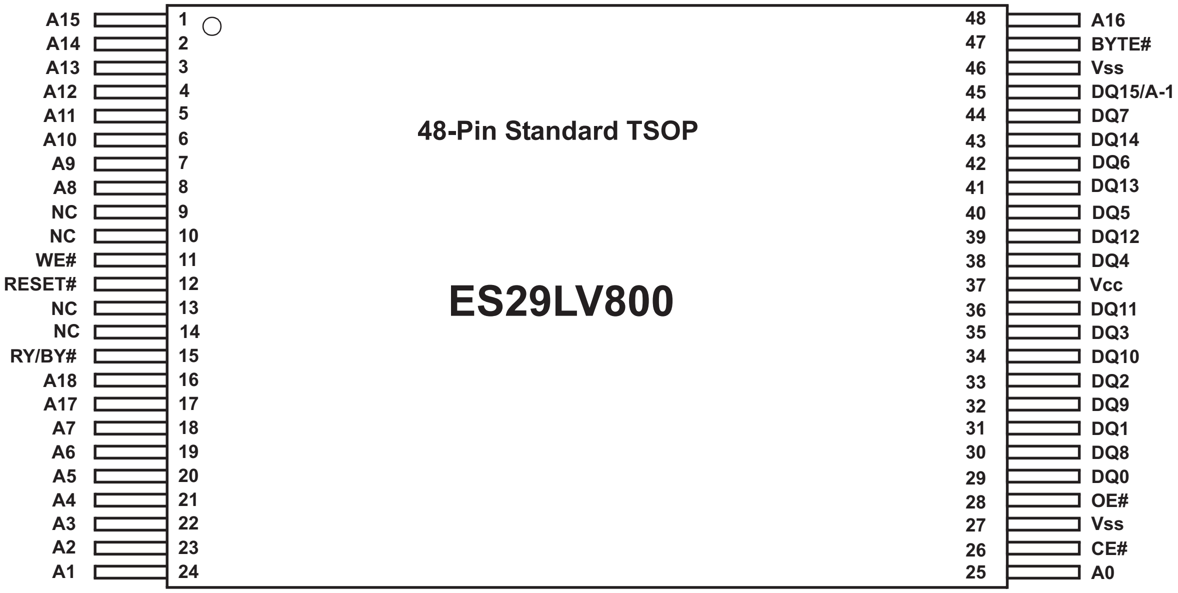
BLOCK DIAGRAM


RY/BY#
Vcc
Vss
Vcc Detector
Timer/ Counter
DQ0-DQ15(A-1)
Analog Bias Generator
Input/Output Buffers
WE#
RESET#
Command Register
Write State Machine
Data Latch/ Sense Amps
Sector Switches
A<0:18>
Y-Decoder
Y-Decoder
Address Latch
X-Decoder
Cell Array
CE#
OE#
BYTE#
Chip Enable Output Enable Logic

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -36

Q3651 : ES29LV800ET-70TG (8 Mbit Flash Memory)

PIN CONFIGURATION


48-Pin Standard TSOP
ES29LV800
A15 1
A14 2
A13 3
A12 4
A11 5
A10 6
A9 7
A8 8
NC 9
NC 10
WE# 11
RESET# 12
NC 13
NC 14
RY/BY# 15
A18 16
A17 17
A7 18
A6 19
A5 20
A4 21
A3 22
A2 23
A1 24
48 A16
47 BYTE#
46 Vss
45 DQ15/A-1
44 DQ7
43 DQ14
42 DQ6
41 DQ13
40 DQ5
39 DQ12
38 DQ4
37 Vcc
36 DQ11
35 DQ3
34 DQ10
33 DQ2
32 DQ9
31 DQ1
30 DQ8
29 DQ0
28 OE#
27 Vss
26 CE#
25 A0

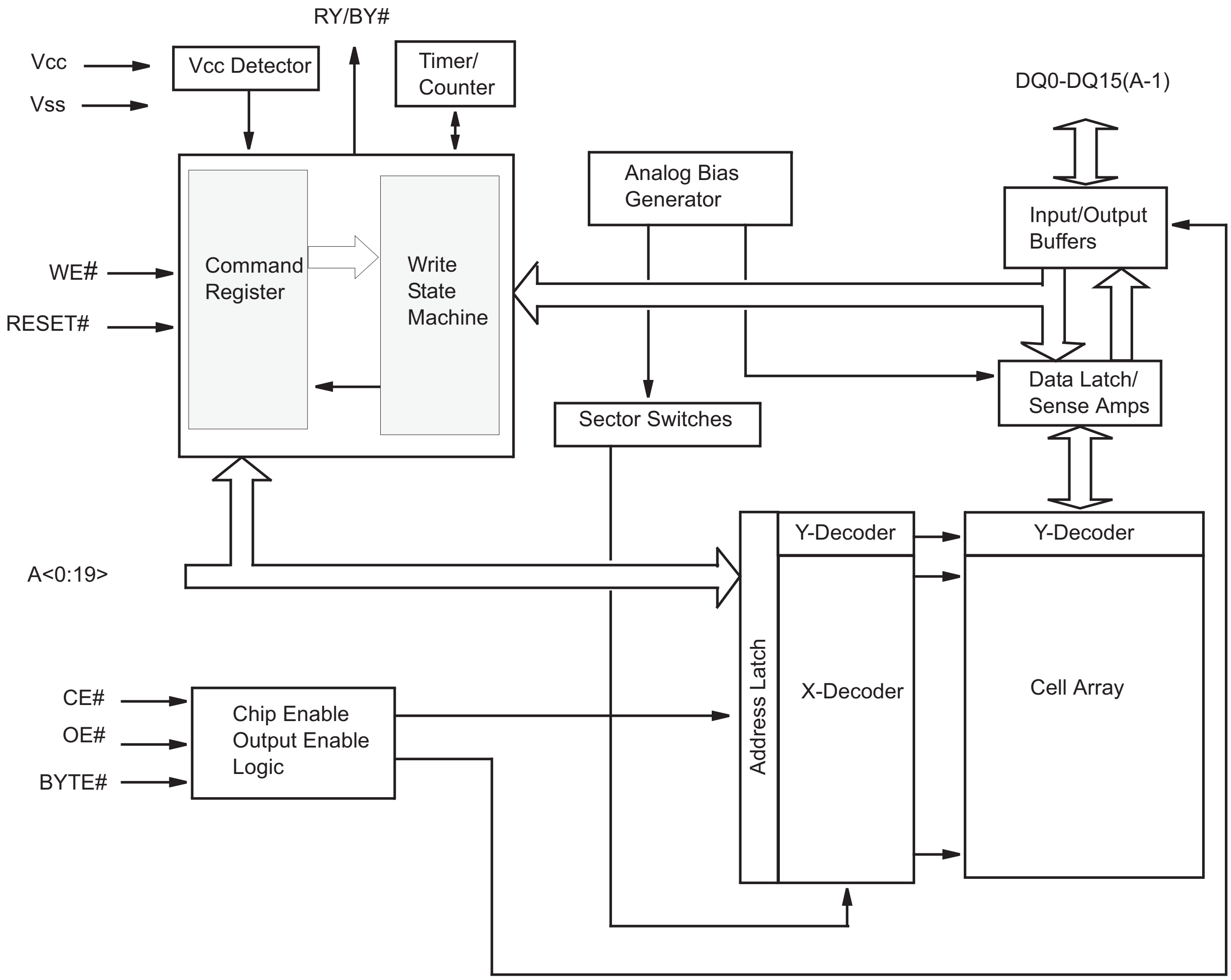
TERMINAL DESCRIPTION

Pin	Description
A0-A18	19 Addresses
DQ0-DQ14	15 Data Inputs/Outputs
DQ15/A-1	DQ15 (Data Input/Output, Word Mode) A-1 (LSB Address Input, Byte Mode)
CE#	Chip Enable
OE#	Output Enable
WE#	Write Enable
RESET#	Hardware Reset Pin, Active Low
BYTE#	Selects 8-bit or 16-bit mode
RY/BY#	Ready/Busy Output
Vcc	3.0 volt-only single power supply (see Product Selector Guide for speed options and voltage supply tolerances)
Vss	Device Ground
NC	Pin Not Connected Internally

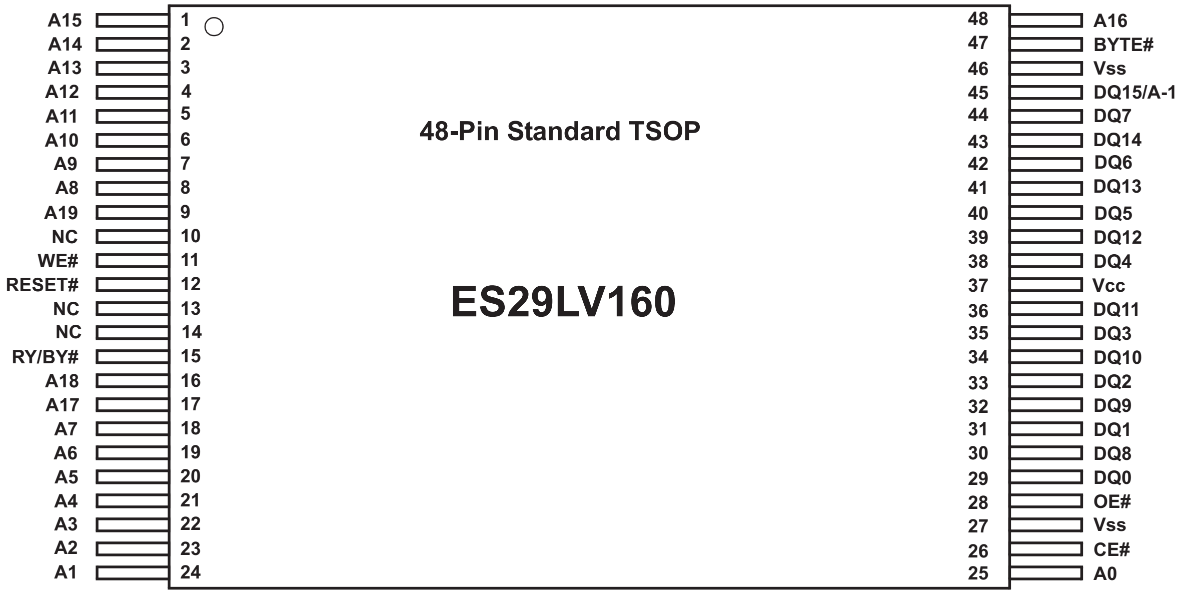
IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -37

Q3451: ES29LV160ET-70TG (16 Mbit Flash Memory)

BLOCK DIAGRAM


RY/BY#
Vcc
Vss
Vcc Detector
Timer/ Counter
DQ0-DQ15(A-1)
Analog Bias Generator
Input/Output Buffers
WE#
RESET#
Command Register
Write State Machine
Data Latch/ Sense Amps
Sector Switches
Y-Decoder
Y-Decoder
A<0:19>
CE#
OE#
BYTE#
Chip Enable Output Enable Logic
Address Latch
X-Decoder
Cell Array

PIN CONFIGURATION


A15 1
A14 2
A13 3
A12 4
A11 5
A10 6
A9 7
A8 8
A19 9
NC 10
WE# 11
RESET# 12
NC 13
NC 14
RY/BY# 15
A18 16
A17 17
A7 18
A6 19
A5 20
A4 21
A3 22
A2 23
A1 24
48 A16
47 BYTE#
46 Vss
45 DQ15/A-1
44 DQ7
43 DQ14
42 DQ6
41 DQ13
40 DQ5
39 DQ12
38 DQ4
37 Vcc
36 DQ11
35 DQ3
34 DQ10
33 DQ2
32 DQ9
31 DQ1
30 DQ8
29 DQ0
28 OE#
27 Vss
26 CE#
25 A0
48-Pin Standard TSOP
ES29LV160

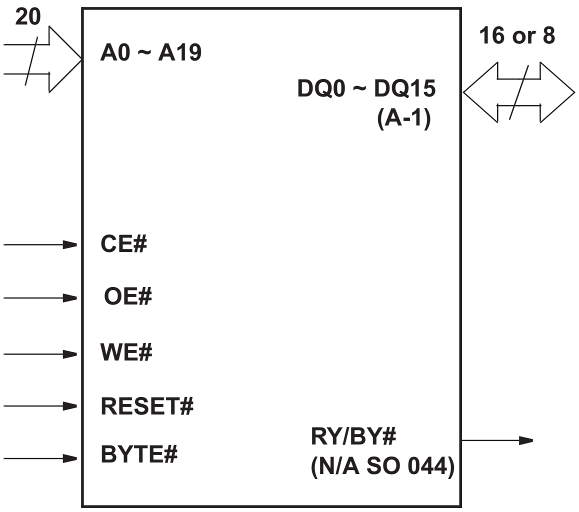
IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -38

Q3451: ES29LV160ET-70TG (16 Mbit Flash Memory)

TERMINAL DESCRIPTION

Pin	Description
A0-A19	20 Addresses
DQ0-DQ14	15 Data Inputs/Outputs
DQ15/A-1	DQ15 (Data Input/Output, Word Mode) A-1 (LSB Address Input, Byte Mode)
CE#	Chip Enable
OE#	Output Enable
WE#	Write Enable
RESET#	Hardware Reset Pin, Active Low
BYTE#	Selects 8-bit or 16-bit mode
RY/BY#	Ready/Busy Output (N/A SO 044)
Vcc	3.0 volt-only single power supply (see Product Selector Guide for speed options and voltage supply tolerances)
Vss	Device Ground
NC	Pin Not Connected Internally

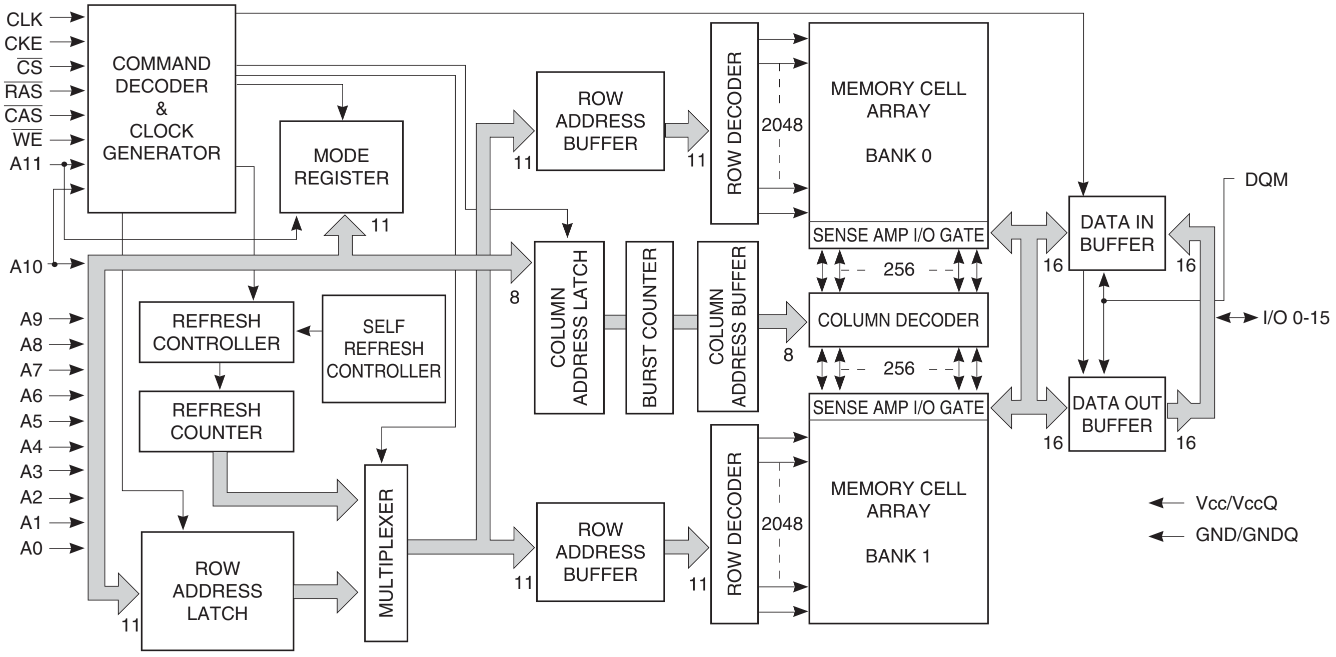
LOGIC SYMBOL



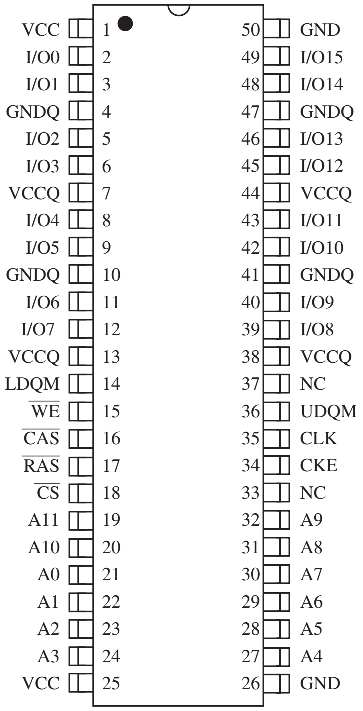
IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -39

Q3461, Q3471, Q3561: IC42S16100 (16-Mbit Synchronous Dynamic RAM)

BLOCK DIAGRAM


CLK
CKE
$\overline{CS}$
$\overline{RAS}$
$\overline{CAS}$
$\overline{WE}$
A11
A10
A9
A8
A7
A6
A5
A4
A3
A2
A1
A0
COMMAND DECODER & CLOCK GENERATOR
MODE REGISTER
11
REFRESH CONTROLLER
SELF REFRESH CONTROLLER
REFRESH COUNTER
ROW ADDRESS LATCH
11
MULTIPLEXER
ROW ADDRESS BUFFER
11
11
COLUMN ADDRESS LATCH
8
BURST COUNTER
COLUMN ADDRESS BUFFER
8
ROW DECODER
2048
MEMORY CELL ARRAY
BANK 0
SENSE AMP I/O GATE
256
COLUMN DECODER
256
SENSE AMP I/O GATE
ROW ADDRESS BUFFER
11
11
ROW DECODER
2048
MEMORY CELL ARRAY
BANK 1
DATA IN BUFFER
DATA OUT BUFFER
16
16
16
16
DQM
I/O 0-15
Vcc/VccQ
GND/GNDQ

PIN CONFIGURATION


VCC 1
I/O0 2
I/O1 3
GNDQ 4
I/O2 5
I/O3 6
VCCQ 7
I/O4 8
I/O5 9
GNDQ 10
I/O6 11
I/O7 12
VCCQ 13
LDQM 14
$\overline{WE}$ 15
$\overline{CAS}$ 16
$\overline{RAS}$ 17
$\overline{CS}$ 18
A11 19
A10 20
A0 21
A1 22
A2 23
A3 24
VCC 25
50 GND
49 I/O15
48 I/O14
47 GNDQ
46 I/O13
45 I/O12
44 VCCQ
43 I/O11
42 I/O10
41 GNDQ
40 I/O9
39 I/O8
38 VCCQ
37 NC
36 UDQM
35 CLK
34 CKE
33 NC
32 A9
31 A8
30 A7
29 A6
28 A5
27 A4
26 GND

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -40

Q3461, Q3471, Q3561: IC42S16100 (16-Mbit Synchronous Dynamic RAM)

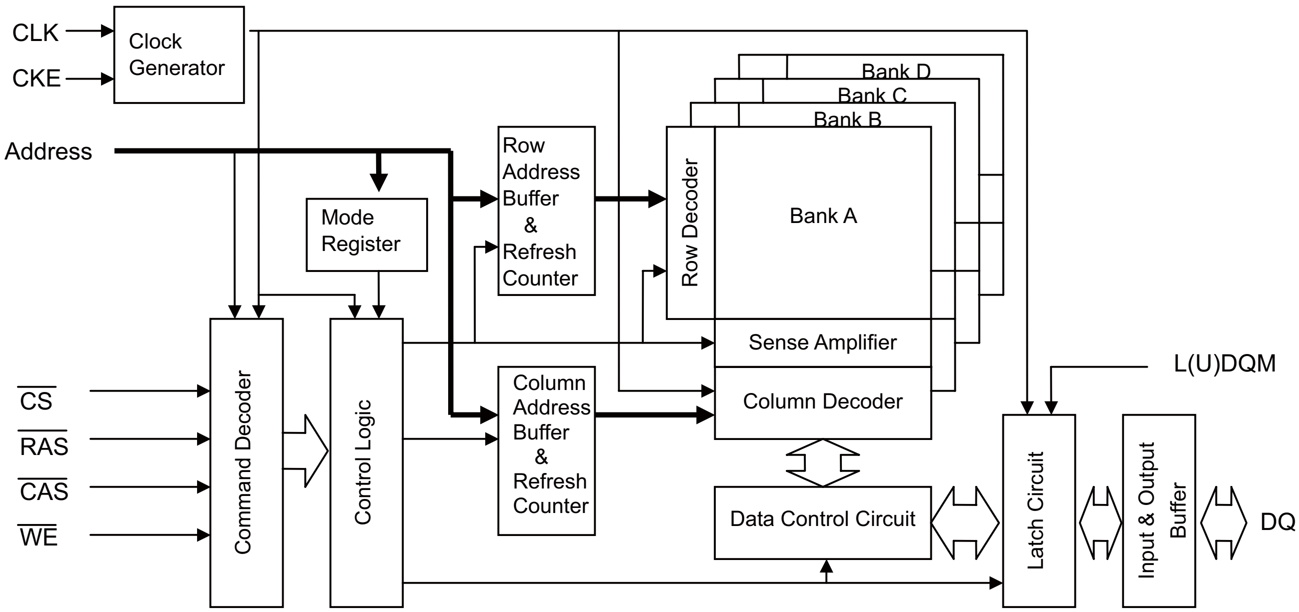
TERMINAL DESCRIPTION

Pin No.	Pin name	Function (In Detail)
20 to 24 27 to 32	A0-A10	A0 to A10 are address inputs. A0-A10 are used as row address inputs during active command input and A0-A7 as column address inputs during read or write command input. A10 is also used to determine the precharge mode during other commands. If A10 is LOW during precharge command, the bank selected by A11 is precharged, but if A10 is HIGH, both banks will be precharged. When A10 is HIGH in read or write command cycle, the precharge starts automatically after the burst access. These signals become part of the OP CODE during mode register set command input.
19	A11	A11 is the bank selection signal. When A11 is LOW, bank 0 is selected and when high, bank 1 is selected. This signal becomes part of the OP CODE during mode register set command input.
16	$\overline{\text{CAS}}$	$\overline{\text{CAS}}$, in conjunction with the $\overline{\text{RAS}}$ and $\overline{\text{WE}}$, forms the device command. See the "Command Truth Table" item for details on device commands.
34	CKE	The CKE input determines whether the CLK input is enabled within the device. When is CKE HIGH, the next rising edge of the CLK signal will be valid, and when LOW, invalid. When CKE is LOW, the device will be in either the power-down mode, the clock suspend mode, or the self refresh mode. The CKE is an asynchronous input.
35	CLK	CLK is the master clock input for this device. Except for CKE, all inputs to this device are acquired in synchronization with the rising edge of this pin.
18	$\overline{\text{CS}}$	The $\overline{\text{CS}}$ input determines whether command input is enabled within the device. Command input is enabled when $\overline{\text{CS}}$ is LOW, and disabled with $\overline{\text{CS}}$ is HIGH. The device remains in the previous state when $\overline{\text{CS}}$ is HIGH.
2, 3, 5, 6, 8, 9, 11, 12, 39, 40, 42, 43, 45, 46, 48, 49	I/O0 to I/O15	I/O0 to I/O15 are I/O pins. I/O through these pins can be controlled in byte units using the LDQM and UDQM pins.
14, 36	LDQM, UDQM	LDQM and UDQM control the lower and upper bytes of the I/O buffers. In read mode, LDQM and UDQM control the output buffer. When LDQM or UDQM is LOW, the corresponding buffer byte is enabled, and when HIGH, disabled. The outputs go to theHIGH impedance state when LDQM/UDQM is HIGH. This function corresponds to $\overline{\text{OE}}$ in conventional DRAMs. In write mode, LDQM and UDQM control the input buffer. When LDQM or UDQM is LOW, the corresponding buffer byte is enabled, and data can be written to the device. When LDQM or UDQM is HIGH, input data is masked and cannot be written to the device.
17	$\overline{\text{RAS}}$	$\overline{\text{RAS}}$, in conjunction with $\overline{\text{CAS}}$ and $\overline{\text{WE}}$, forms the device command. See the "Command Truth Table" item for details on device commands.
15	$\overline{\text{WE}}$	$\overline{\text{WE}}$, in conjunction with $\overline{\text{RAS}}$ and $\overline{\text{CAS}}$, forms the device command. See the "Command Truth Table" item for details on device commands.
7, 13, 38, 44	VCCQ	VCCQ is the output buffer power supply.
1, 25	VCC	VCC is the device internal power supply.
4, 10, 41, 47	GNDQ	GNDQ is the output buffer ground.
26, 50	GND	GND is the device internal ground.

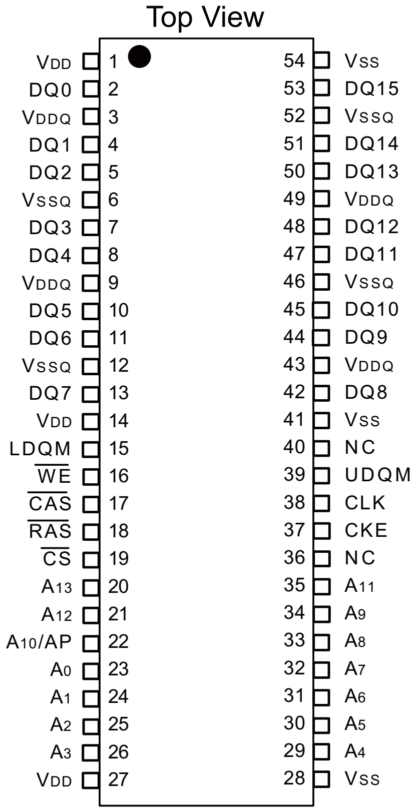
IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -41

Q3661:M12L64164A-7TG (64 Mbit Syncronous DRAM)

BLOCK DIAGRAM


CLK
CKE
Clock Generator
Address
Mode Register
Row Address Buffer & Refresh Counter
Row Decoder
Bank D
Bank C
Bank B
Bank A
Sense Amplifier
L(U)DQM
Column Decoder
Column Address Buffer & Refresh Counter
CS
RAS
CAS
WE
Command Decoder
Control Logic
Data Control Circuit
Latch Circuit
Input & Output Buffer
DQ

PIN CONFIGURATION


Top View
VDD 1
DQ0 2
VDDQ 3
DQ1 4
DQ2 5
VSSQ 6
DQ3 7
DQ4 8
VDDQ 9
DQ5 10
DQ6 11
VSSQ 12
DQ7 13
VDD 14
LDQM 15
WE 16
CAS 17
RAS 18
CS 19
A13 20
A12 21
A10/AP 22
A0 23
A1 24
A2 25
A3 26
VDD 27
54 VSS
53 DQ15
52 VSSQ
51 DQ14
50 DQ13
49 VDDQ
48 DQ12
47 DQ11
46 VSSQ
45 DQ10
44 DQ9
43 VDDQ
42 DQ8
41 VSS
40 NC
39 UDQM
38 CLK
37 CKE
36 NC
35 A11
34 A9
33 A8
32 A7
31 A6
30 A5
29 A4
28 VSS

FEATURES

- JEDEC standard 3.3V power supply
- LVTTL compatible with multiplexed address
- Four banks operation
- MRS cycle with address key programs
  - CAS Latency (2 & 3)
  - Burst Length (1, 2, 4, 8 & full page)
  - Burst Type (Sequential & Interleave)
- All inputs are sampled at the positive going edge of the system clock
- Auto & self refresh
- 15.6 μ s refresh interval

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -42

Q3661:M12L64164A-7TG (64 Mbit Syncronous DRAM)

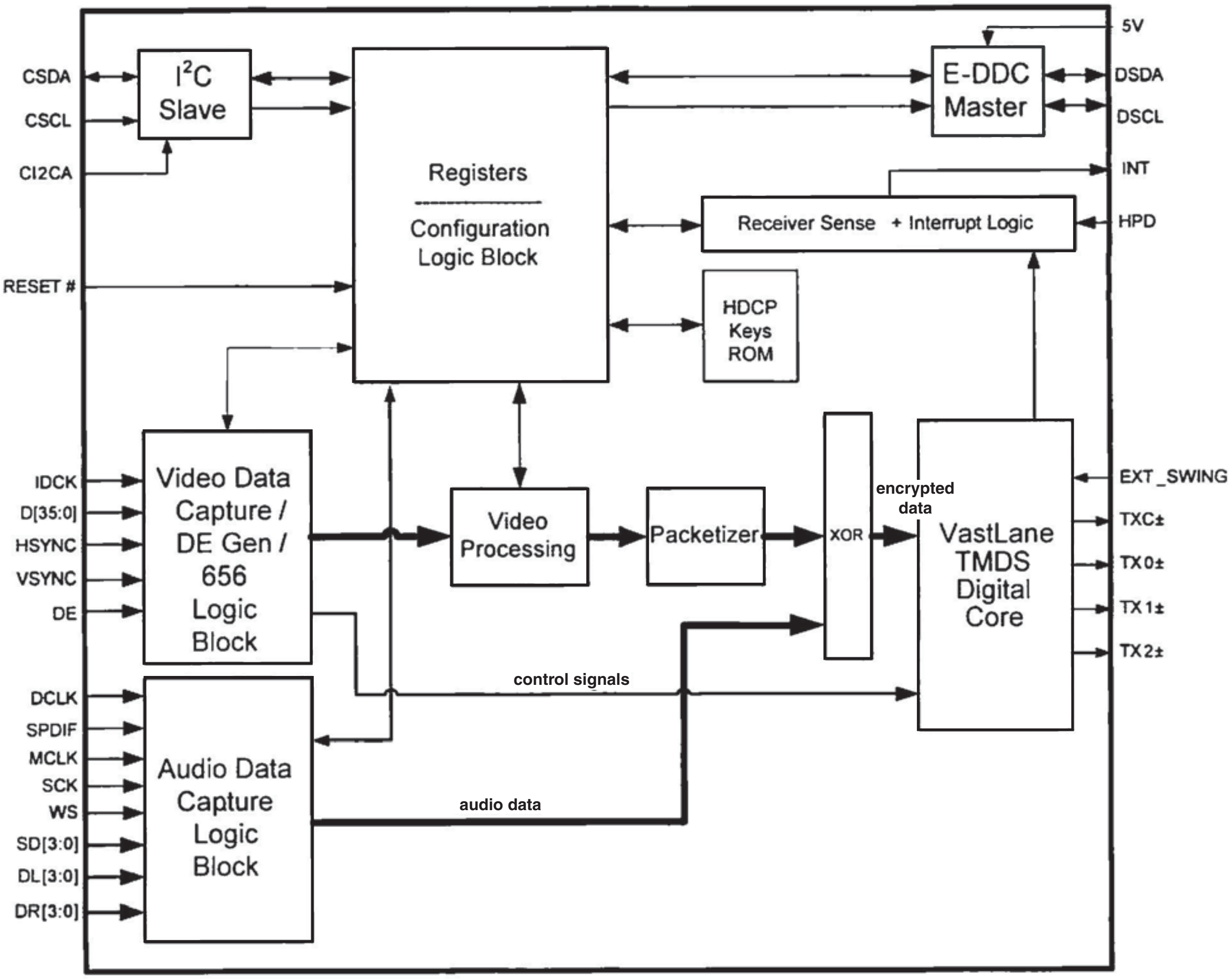
TERMINAL DESCRIPTION

PIN	NAME	INPUT FUNCTION
CLK	System Clock	Active on the positive going edge to sample all inputs
$\overline{\text{CS}}$	Chip Select	Disables or enables device operation by masking or enabling all inputs except CLK , CKE and L(U)DQM
CKE	Clock Enable	Masks system clock to freeze operation from the next clock cycle. CKE should be enabled at least one cycle prior new command. Disable input buffers for power down in standby.
A0 ~ A11	Address	Row / column address are multiplexed on the same pins. Row address : RA0~RA11, column address : CA0~CA7
A12 , A13	Bank Select Address	Selects bank to be activated during row address latch time. Selects bank for read / write during column address latch time.
$\overline{\text{RAS}}$	Row Address Strobe	Latches row addresses on the positive going edge of the CLK with $\overline{\text{RAS}}$ low. Enables row access & precharge.
$\overline{\text{CAS}}$	Column Address Strobe	Latches column address on the positive going edge of the CLK with $\overline{\text{CAS}}$ low. Enables column access.
$\overline{\text{WE}}$	Write Enable	Enables write operation and row precharge. Latches data in starting from $\overline{\text{CAS}}$, $\overline{\text{WE}}$ active.
L(U)DQM	Data Input / Output Mask	Makes data output Hi-Z, t_{SHZ} after the clock and masks the output. Blocks data input when L(U)DQM active.
DQ0 ~ DQ15	Data Input / Output	Data inputs / outputs are multiplexed on the same pins.
VDD / VSS	Power Supply / Ground	Power and ground for the input buffers and the core logic.
VDDQ / VSSQ	Data Output Power / Ground	Isolated power supply and ground for the output buffers to provide improved noise immunity.
NC	No Connection	This pin is recommended to be left No Connection on the device.

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -43

Q8401: SII9134CTU (HDMI TRANSMITTER)

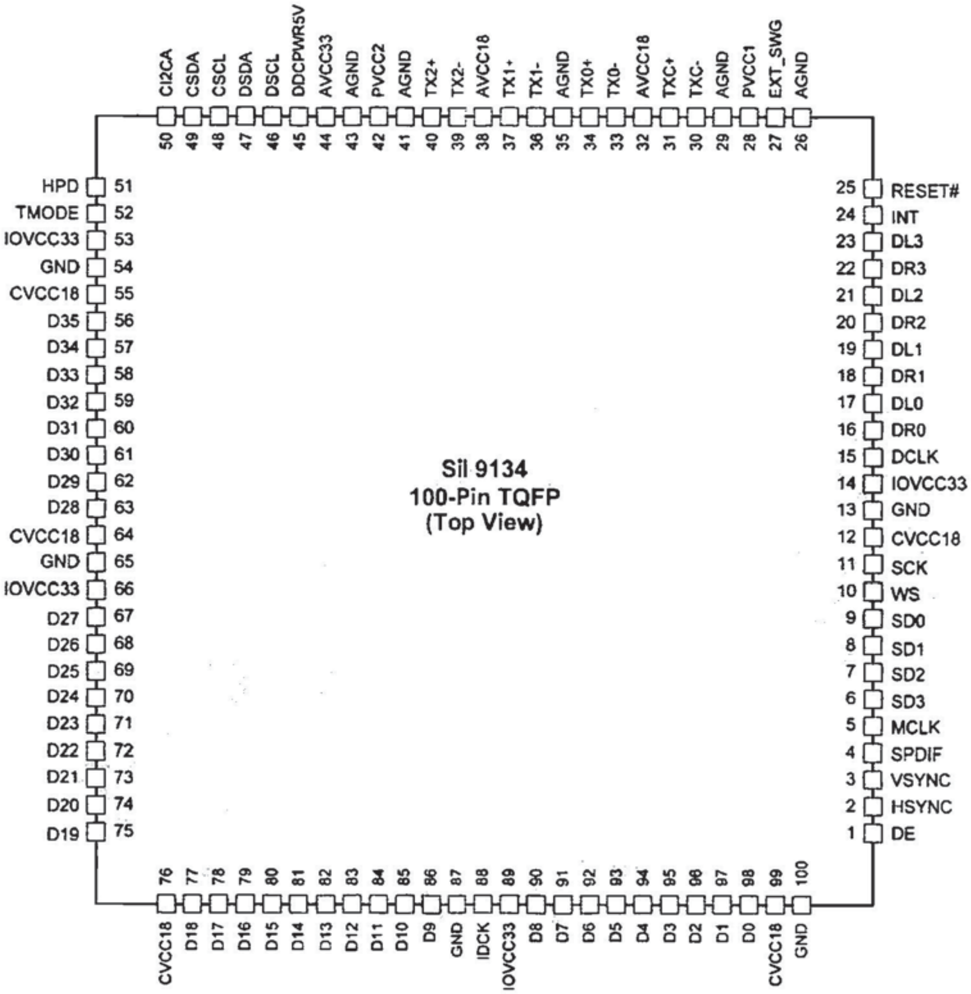
BLOCK DIAGRAM


CSDA
CSCL
CI2CA
RESET #
I^2C Slave
Registers
Configuration Logic Block
E-DDC Master
5V
DSDA
DSCL
INT
Receiver Sense + Interrupt Logic
HPD
HDCP Keys ROM
IDCK
D[35:0]
HSYNC
VSYNC
DE
Video Data Capture / DE Gen / 656 Logic Block
Video Processing
Packetizer
XOR
encrypted data
VastLane TMDS Digital Core
EXT_SWING
TXC±
TX0±
TX1±
TX2±
control signals
DCLK
SPDIF
MCLK
SCK
WS
SD[3:0]
DL[3:0]
DR[3:0]
Audio Data Capture Logic Block
audio data

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -44

Q8401: SII9134CTU (HDMI TRANSMITTER)

PIN CONFIGURATION


Sil 9134
100-Pin TQFP
(Top View)
50 CI2CA
49 CSDA
48 CSCL
47 DSDA
46 DSCL
45 DDCPWR5V
44 AVCC33
43 AGND
42 PVCC2
41 AGND
40 TX2+
39 TX2-
38 AVCC18
37 TX1+
36 TX1-
35 AGND
34 TX0+
33 TX0-
32 AVCC18
31 TXC+
30 TXC-
29 AGND
28 PVCC1
27 EXT_SWG
26 AGND
25 RESET#
24 INT
23 DL3
22 DR3
21 DL2
20 DR2
19 DL1
18 DR1
17 DL0
16 DR0
15 DCLK
14 IOVCC33
13 GND
12 CVCC18
11 SCK
10 WS
9 SD0
8 SD1
7 SD2
6 SD3
5 MCLK
4 SPDIF
3 VSYNC
2 HSYNC
1 DE
51 HPD
52 TMODE
53 IOVCC33
54 GND
55 CVCC18
56 D35
57 D34
58 D33
59 D32
60 D31
61 D30
62 D29
63 D28
64 CVCC18
65 GND
66 IOVCC33
67 D27
68 D26
69 D25
70 D24
71 D23
72 D22
73 D21
74 D20
75 D19
76 CVCC18
77 D18
78 D17
79 D16
80 D15
81 D14
82 D13
83 D12
84 D11
85 D10
86 D9
87 GND
88 IDCK
89 IOVCC33
90 D8
91 D7
92 D6
93 D5
94 D4
95 D3
96 D2
97 D1
98 D0
99 CVCC18
100 GND

TERMINAL DESCRIPTION(1/3)

Configuration/Programing Pins

Pin Name	Pin #	Type	Dir	Description
HPD	51	LVTTL	Input	Hot Plug Detect Input
RSVDL	52	LVTTL	Input	Reserved for use by Silicon Image and must be tied LOW.
INT	24	LVTTL	Output	Interrupt Output.

Control Pins

Pin Name	Pin #	Type	Dir	Description
CI2CA	50	LVTTL	Input	I^{2}C device address select (see page 11)
RESET#	25	LVTTL Schmidt	Input	Reset Pin (Active LOW) 5V Tolerant
CSCL	48	Schmitt	Input	I^{2}C Clock
CSDA	49	Schmitt-Open Drain	Bi-Di	I^{2}C Data (Open drain output.)
DSCL	46	Schmitt-Open Drain	Bi-Di	DDC Clock (Open Drain Output)
DSDA	47	Schmitt-Open Drain	Bi-Di	DDC Data (Open drain output.)

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -45

Q8401: SII9134CTU (HDMI TRANSMITTER)

TERMINAL DESCRIPTION(2/3)

Video and Audio Pins-1

Pin Name	Pin #	Type	Dir	Description
D0	98	LVTTL	Input	These are the lower 12 bits of the 36-bit pixel bus. These pins are highly configurable, and support multiple RGB and YCbCr formats. See Data Bus Mappings on page 30 for complete information.
D1	97	LVTTL	Input	
D2	96	LVTTL	Input	
D3	95	LVTTL	Input	
D4	94	LVTTL	Input	
D5	93	LVTTL	Input	
D6	92	LVTTL	Input	
D7	91	LVTTL	Input	
D8	90	LVTTL	Input	
D9	86	LVTTL	Input	
D10	85	LVTTL	Input	
D11	84	LVTTL	Input	
D12	83	LVTTL	Input	These are the middle 12 bits of the 36-bit pixel bus.
D13	82	LVTTL	Input	
D14	81	LVTTL	Input	
D15	80	LVTTL	Input	
D16	79	LVTTL	Input	
D17	78	LVTTL	Input	
D18	77	LVTTL	Input	
D19	75	LVTTL	Input	
D20	74	LVTTL	Input	
D21	73	LVTTL	Input	
D22	72	LVTTL	Input	
D23	71	LVTTL	Input	
D24	70	LVTTL	Input	These are the upper 12 bits of the 36-bit pixel bus.
D25	69	LVTTL	Input	
D26	68	LVTTL	Input	
D27	67	LVTTL	Input	
D28	63	LVTTL	Input	
D29	62	LVTTL	Input	
D30	61	LVTTL	Input	
D31	60	LVTTL	Input	
D32	59	LVTTL	Input	
D33	58	LVTTL	Input	
D34	57	LVTTL	Input	
D35	56	LVTTL	Input	

Power and Ground Pins

Pin Name	Pin #	Type	Description
CVCC18	12, 55, 64, 76, 99	Power	Digital Core VCC. Connect to 1.8V supply.
IOVCC33	14, 53, 66, 89	Power	IO Pin VCC. Connect to 3.3V supply.
AVCC33	44	Power	Analog VCC. Connect to 3.3V supply.
AVCC18	32, 38,	Power	Analog VCC. Connect to 1.8V supply.
AGND	26, 29, 35, 41,43	Ground	Analog GND.
PVCC1	28	Power	TMDS Core PLL Power. Connect to 1.8V supply.
PVCC2	42	Power	Filter PLL Power. Connect to 1.8V supply.
DDCPWR5V	45	Power	Power reference signal. Used to supply power to the DDC I2C pads when chip is powered off. Connect to 5V supply.
Gnd	13, 54, 65, 87,100	Ground	Digital Ground

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -46

Q8401: SII9134CTU (HDMI TRANSMITTER)

TERMINAL DESCRIPTION(3/3)

Video and Audio Pins-2

Pin Name	Pin #	Type	Dir	Description
IDCK	88	LVTTL	Input	Input Data Clock
DE	1	LVTTL	Input	Data enable
HSYNC	2	LVTTL	Input	Horizontal Sync input control signal
VSYNC	3	LVTTL	Input	Vertical Sync input control signal
SCK	11	LVTTL	Input	I^2S Serial Clock
WS	10	LVTTL	Input	I^2S Word Select
SD0	9	LVTTL	Input	I^2S Serial Data
SD1	8	LVTTL	Input	I^2S Serial Data
SD2	7	LVTTL	Input	I^2S Serial Data
SD3	6	LVTTL	Input	I^2S Serial Data
DL0	17	LVTTL	Input	One-bit Audio Data Left 0
DR0	16	LVTTL	Input	One-bit Audio Data Right 0
DL1	19	LVTTL	Input	One-bit Audio Data Left 1
DR1	18	LVTTL	Input	One-bit Audio Data Right 1
DL2	21	LVTTL	Input	One-bit Audio Data Left 2
DR2	20	LVTTL	Input	One-bit Audio Data Right 2
DL3	23	LVTTL	Input	One-bit Audio Data Left 3
DR3	22	LVTTL	Input	One-bit Audio Data Right 3
DCLK	15	LVTTL	Input	One-bit Audio Clock Input
MCLK	5	LVTTL	Input	Audio Input Master Clock
SPDIF	4	LVTTL	Input	S/PDIF Audio Input.

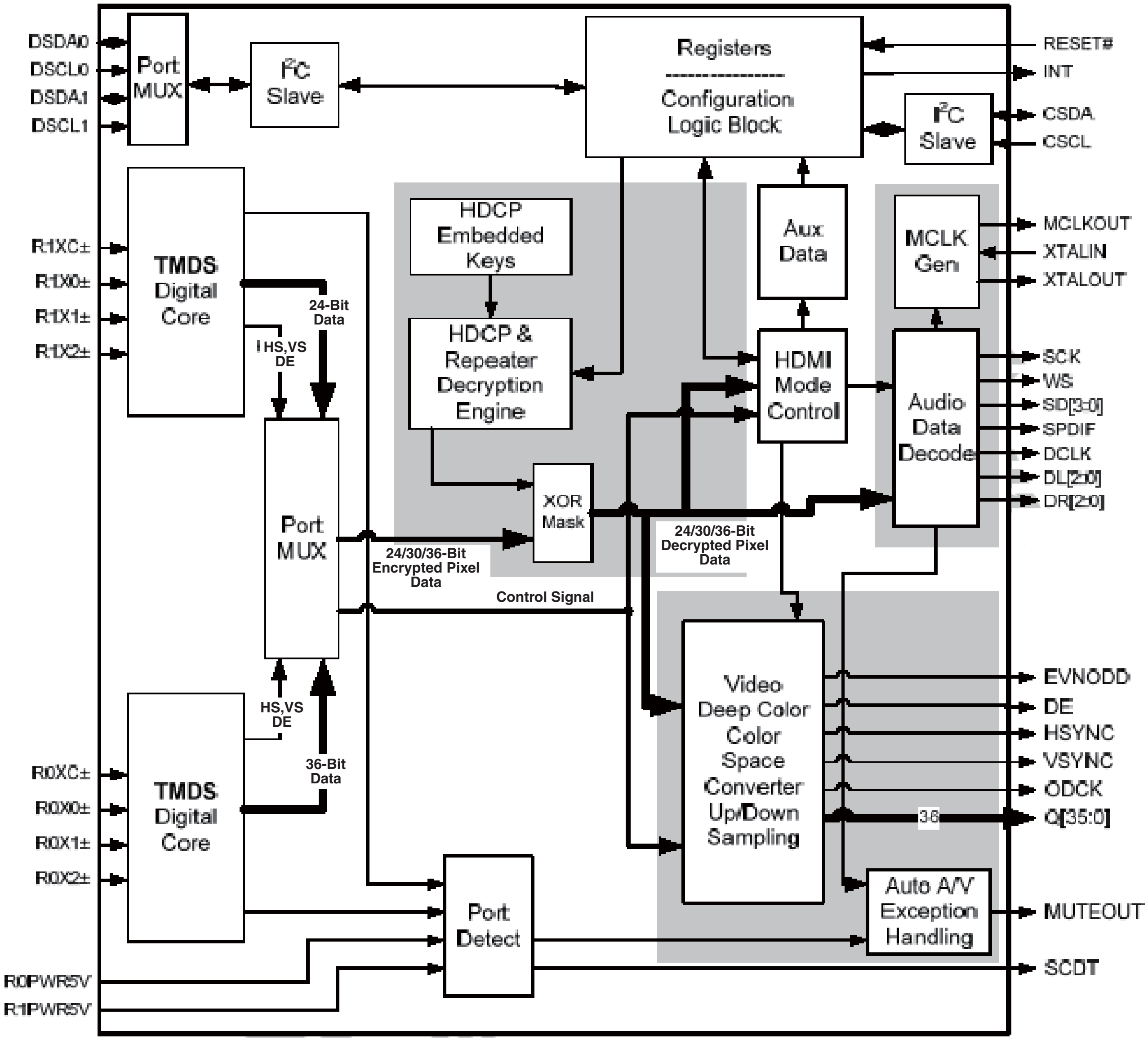
Differetial Signal Data Pins

Pin Name	Pin #	Type	Dir	Description
TX0+	34	TMDS	Output	TMDS output data pairs.
TX0-	33	TMDS	Output	
TX1+	37	TMDS	Output	
TX1-	36	TMDS	Output	
TX2+	40	TMDS	Output	
TX2-	39	TMDS	Output	
TXC+	31	TMDS	Output	TMDS output clock pair.
TXC-	30	TMDS	Output	
EXT_SWING	27	Analog	Input	Voltage Swing Adjust. A resistor is tied from this pin to AVCC. This resistor determines the amplitude of the voltage swing. Recommend 698 Ω 1% when source termination and leakage bias is on and 845 Ω 1% when source termination and leakage bias is off.

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -47

Q8501: SII9135CTU (HDMI RECEIVER)

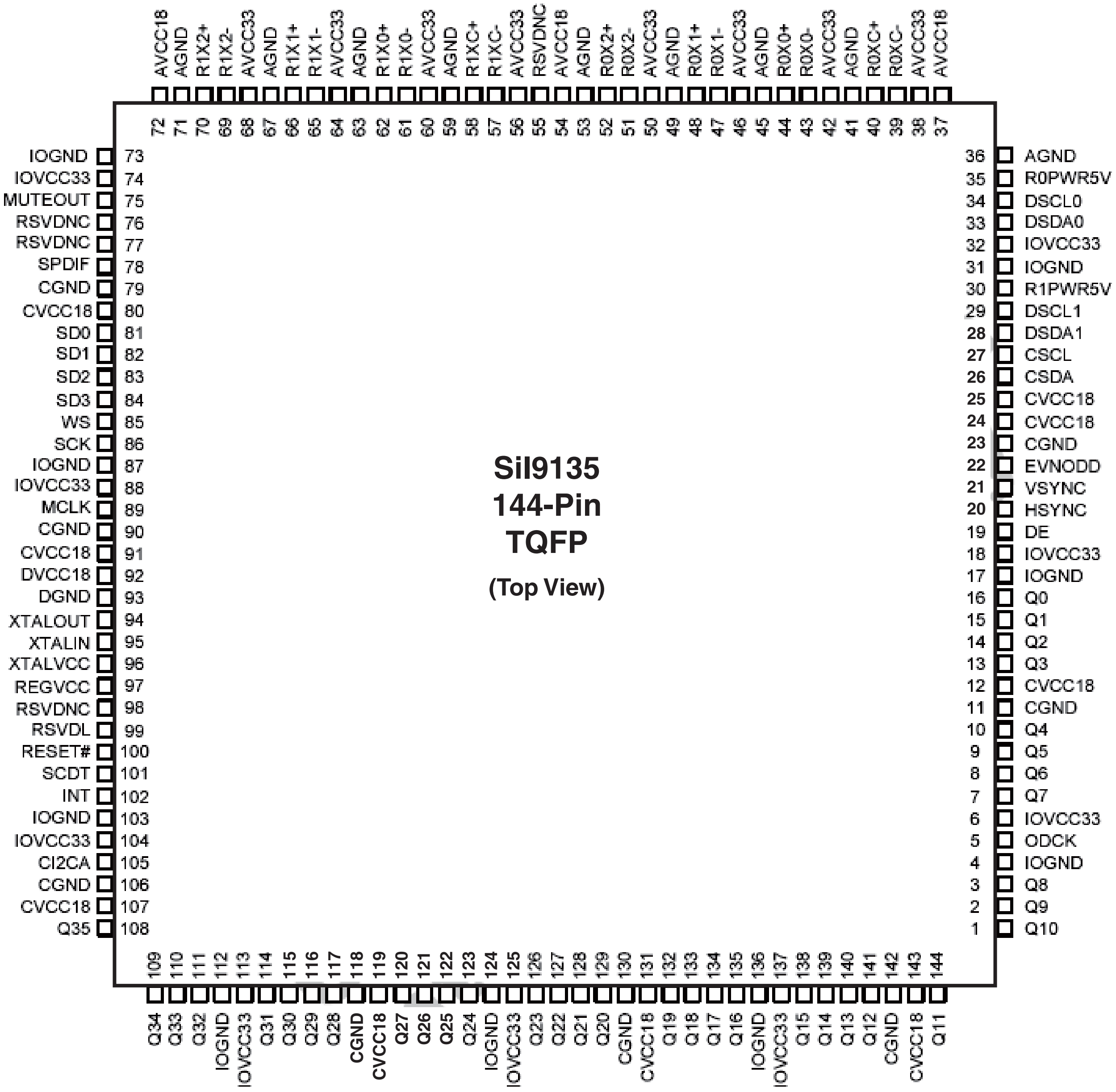
BLOCK DIAGRAM


DSDA0
DSCL0
DSDA1
DSCL1
Port MUX
I²C Slave
Registers
Configuration Logic Block
RESET#
INT
I²C Slave
CSDA
CSCL
HDCP Embedded Keys
HDCP & Repeater Decryption Engine
Aux Data
MCLK Gen
MCLKOUT
XTALIN
XTALOUT
R1XC±
R1X0±
R1X1±
R1X2±
TMDS Digital Core
24-Bit Data
HS,VS DE
HDMI Mode Control
Audio Data Decode
SCK
WS
SD[3:0]
SPDIF
DCLK
DL[2:0]
DR[2:0]
Port MUX
XOR Mask
24/30/36-Bit Encrypted Pixel Data
24/30/36-Bit Decrypted Pixel Data
Control Signal
Video Deep Color Color Space Converter Up/Down Sampling
EVNODD
DE
HSYNC
VSYNC
ODCK
36
Q[35:0]
HS,VS DE
36-Bit Data
R0XC±
R0X0±
R0X1±
R0X2±
TMDS Digital Core
Port Detect
Auto A/V Exception Handling
MUTEOUT
SCDT
R0PWR5V
R1PWR5V

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -48

Q8501: SII9135CTU (HDMI RECEIVER)

PIN CONFIGURATION


SiI9135
144-Pin
TQFP
(Top View)
1 Q10
2 Q9
3 Q8
4 IOGND
5 ODCK
6 IOVCC33
7 Q7
8 Q6
9 Q5
10 Q4
11 CGND
12 CVCC18
13 Q3
14 Q2
15 Q1
16 Q0
17 IOGND
18 IOVCC33
19 DE
20 HSYNC
21 VSYNC
22 EVNODD
23 CGND
24 CVCC18
25 CVCC18
26 CSDA
27 CSCL
28 DSDA1
29 DSCL1
30 R1PWR5V
31 IOGND
32 IOVCC33
33 DSDA0
34 DSCL0
35 R0PWR5V
36 AGND
37 AVCC18
38 AVCC33
39 R0XC-
40 R0XC+
41 AGND
42 AVCC33
43 R0X0-
44 R0X0+
45 AGND
46 AVCC33
47 R0X1-
48 R0X1+
49 AGND
50 AVCC33
51 R0X2-
52 R0X2+
53 AGND
54 AVCC18
55 RSVDNC
56 AVCC33
57 R1XC-
58 R1XC+
59 AGND
60 AVCC33
61 R1X0-
62 R1X0+
63 AGND
64 AVCC33
65 R1X1-
66 R1X1+
67 AGND
68 AVCC33
69 R1X2-
70 R1X2+
71 AGND
72 AVCC18
73 IOGND
74 IOVCC33
75 MUTEOUT
76 RSVDNC
77 RSVDNC
78 SPDIF
79 CGND
80 CVCC18
81 SD0
82 SD1
83 SD2
84 SD3
85 WS
86 SCK
87 IOGND
88 IOVCC33
89 MCLK
90 CGND
91 CVCC18
92 DVCC18
93 DGND
94 XTALOUT
95 XTALIN
96 XTALVCC
97 REGVCC
98 RSVDNC
99 RSVDL
100 RESET#
101 SCDT
102 INT
103 IOGND
104 IOVCC33
105 CI2CA
106 CGND
107 CVCC18
108 Q35
109 Q34
110 Q33
111 Q32
112 IOGND
113 IOVCC33
114 Q31
115 Q30
116 Q29
117 Q28
118 CGND
119 CVCC18
120 Q27
121 Q26
122 Q25
123 Q24
124 IOGND
125 IOVCC33
126 Q23
127 Q22
128 Q21
129 Q20
130 CGND
131 CVCC18
132 Q19
133 Q18
134 Q17
135 Q16
136 IOGND
137 IOVCC33
138 Q15
139 Q14
140 Q13
141 Q12
142 CGND
143 CVCC18
144 Q11

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -49

Q8501: SII9135CTU (HDMI RECEIVER)

TERMINAL DESCRIPTION(1/4)

Video and Audio Pins

Pin Name	Pin #	Strength	Type	Dir	Description
Q0	16	8 mA	LVTTL	Output	36-Bit Output Pixel Data Bus. Q35:0 is highly configurable using the VDD_CONFIG register. It supports a wide array of output formats, including multiple RBG and YCbCr bus formats. Using the appropriate bits in the PD register, the output drivers can be put into a high impedance (tri-state) mode. A weak, internal pull-down device brings each output to ground.
Q1	15		LVTTL	Output	
Q2	14		LVTTL	Output	
Q3	13		LVTTL	Output	
Q4	10		LVTTL	Output	
Q5	9		LVTTL	Output	
Q6	8		LVTTL	Output	
Q7	7		LVTTL	Output	
Q8	3		LVTTL	Output	
Q9	2		LVTTL	Output	
Q10	1		LVTTL	Output	
Q11	144		LVTTL	Output	
Q12	141		LVTTL	Output	
Q13	140		LVTTL	Output	
Q14	139		LVTTL	Output	
Q15	138		LVTTL	Output	
Q16	135		LVTTL	Output	
Q17	134		LVTTL	Output	
Q18	133		LVTTL	Output	
Q19	132		LVTTL	Output	
Q20	129		LVTTL	Output	
Q21	128		LVTTL	Output	
Q22	127		LVTTL	Output	
Q23	126		LVTTL	Output	
Q24	123		LVTTL	Output	
Q25	122		LVTTL	Output	
Q26	121		LVTTL	Output	
Q27	120		LVTTL	Output	
Q28	117		LVTTL	Output	
Q29	116		LVTTL	Output	
Q30	115		LVTTL	Output	
Q31	114		LVTTL	Output	
Q32	111		LVTTL	Output	
Q33	110		LVTTL	Output	
Q34	109		LVTTL	Output	
Q35	108		LVTTL	Output	
DE	19	8 mA	LVTTL	Output	Data Enable
HSYNC	20	8 mA	LVTTL	Output	Horizontal Sync Output
VSYNC	21	8 mA	LVTTL	Output	Vertical Sync Output
EVNODD	22	8 mA	LVTTL	Output	Indicates Even or Odd Field for Interlaced Formats
ODCK	5	12 mA	LVTTL	Output	Output Data Clock

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -50

Q8501: SII9135CTU (HDMI RECEIVER)

TERMINAL DESCRIPTION(2/4)

Digital Audio Output Pins

Pin Name	Pin #	Strength	Type	Dir	Description
XTALIN	95	---	5V Tolerant LVTTL	In	Crystal Clock Input. Also allows LVTTL input. Frequency required: 26-28.5 MHz
XTALOUT	94	4 mA	LVTTL	Out	Crystal Clock Output
MCLK	89	8 mA	LVTTL	Out	Audio Master Clock Output
SCK/DCLK	86	4 mA	LVTTL	Out	I2S Serial Clock Output. DSD Clock Out.
WS/DR0	85	4 mA	LVTTL	Out	I2S Word Select Output. DSD Serial Right Ch0 Data Output
SD0/DL0	81	4 mA	LVTTL	Out	I2S Serial Data Output / DSD Audio Output Configurable to be shared with DSD. SD0 = DSD Serial Left Ch0 Data Output SD1 = DSD Serial Right Ch1 Data Output SD2 = DSD Serial Left Ch1 Data Output
SD1/DR1	82	4 mA	LVTTL	Out	
SD2/DL1	83	4 mA	LVTTL	Out	
SD3/DR2	84	4 mA	LVTTL	Out	
SPDIF/DL2	78	4 mA	LVTTL	Out	S/PDIF Audio Output. Configurable to be shared with DSD DSD Serial Left Ch2 Data Output
MUTEOUT	75	4 mA	LVTTL	Out	Mute Audio Output. Signal to the external downstream audio device, audio DAC, etc. to downstream audio device, audio DAC, etc. to mute audio output.

Differential Signal Data Pins

Pin Name	Pin #	Type	Description	
R0XC+	40	Analog	TMDS Input Clock Pair	HDMI Port 0
R0XC-	39	Analog		
R0X0+	44	Analog	TMDS Input Data Pair	
R0X0-	43	Analog		
R0X1+	48	Analog	TMDS Input Data Pair	
R0X1-	47	Analog		
R0X2+	52	Analog	TMDS Input Data Pair	
R0X2-	51	Analog		
R1XC+	58	Analog	TMDS Input Clock Pair	HDMI Port 1
R1XC-	57	Analog		
R1X0+	62	Analog	TMDS Input Data Pair	
R1X0-	61	Analog		
R1X1+	66	Analog	TMDS Input Data Pair	
R1X1-	65	Analog		
R1X2+	70	Analog	TMDS Input Data Pair	
R1X2-	69	Analog		

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -51

Q8501: SII9135CTU (HDMI RECEIVER)

TERMINAL DESCRIPTION(3/4)

Configuration/Programming Pins

Pin Name	Pin #	Strength	Type	Dir	Description
INT	102	4 mA	LVTTL	Out	Interrupt Output. Configurable polarity and pushpull output. Multiple sources of interrupt can be enabled through the INT_EN register. See Note 1.
RESET#	100	---	Schmitt	In	Reset Pin. Active LOW. 5V Tolerant
DSCL0	34	---	SchmittOD	In	DDC I2C Clock for Port 0. 5V Tolerant. HDCP KSV, An and Ri values are exchanged over an I2C port during authentication. True open drain, so does not pull to GND if R0PWR5V is not applied.
DSDA0	33	3 mA	SchmittOD	Bi-Di	DDC I2C Data for Port 0. 5V Tolerant. HDCP KSV, An and Ri values are exchanged over an I2C during authentication. True open drain, so does not pull to GND if R0PWR5V is not applied.
DSCL1	29	---	SchmittOD	In	DDC I2C Clock for Port 1. 5V Tolerant. 5V Tolerant. HDCP KSV, An and Ri values are exchanged over an I2C port during authentication. True open drain, so does not pull to GND if R1PWR5V is not applied.
DSDA1	28	3 mA	SchmittOD	Bi-Di	DDC I2C Data for Port 1. 5V Tolerant. 5V Tolerant. HDCP KSV, An and Ri values are exchanged over an I2C port during authentication. True open drain, so does not pull to GND if R1PWR5V is not applied.
CSCL	27	---	Schmitt	In	Configuration/Status I2C Clock. 5V Tolerant. Chip configuration/status, CEA-861 support and downstream HDCP repeater-specific registers are accessed via this I2C port. True open drain, so does not pull to GND if power is not applied.
CSDA	26	3 mA	Schmitt	Bi-Di	Configuration/Status I2C Data. 5V Tolerant. Chip configuration/status, CEA-861 support and downstream HDCP repeater-specific registers are accessed via this I2C port. True open drain, so does not pull to GND if power is not applied.
CI2CA	105		LLVTTL	In	Local I2C Address Select. 5V Tolerant. Low = Addresses 0x60/0x68 High = Addresses 0x62/0x6A
SCDT	101	12 mA	LLVTTL	Out	Indicates Active Video at HDMI Input Port. Sync detection indicator.
R0PWR5V	35	---	LLVTTL	In	Port 0 Transmitter Detect. 5V Tolerant. Used for MUTEIN function. See Note 2, 3.
R1PWR5V	30	---	LLVTTL	In	Port 1 Transmitter Detect. 5V Tolerant. Used for MUTEIN function. See Note 2,3.
RSVDNC	98,77,76,55				Reserved, must be left unconnected
RSVDL	99			In	Reserved, must be tied to ground

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -52

Q8501: SII9135CTU (HDMI RECEIVER)

TERMINAL DESCRIPTION(4/4)

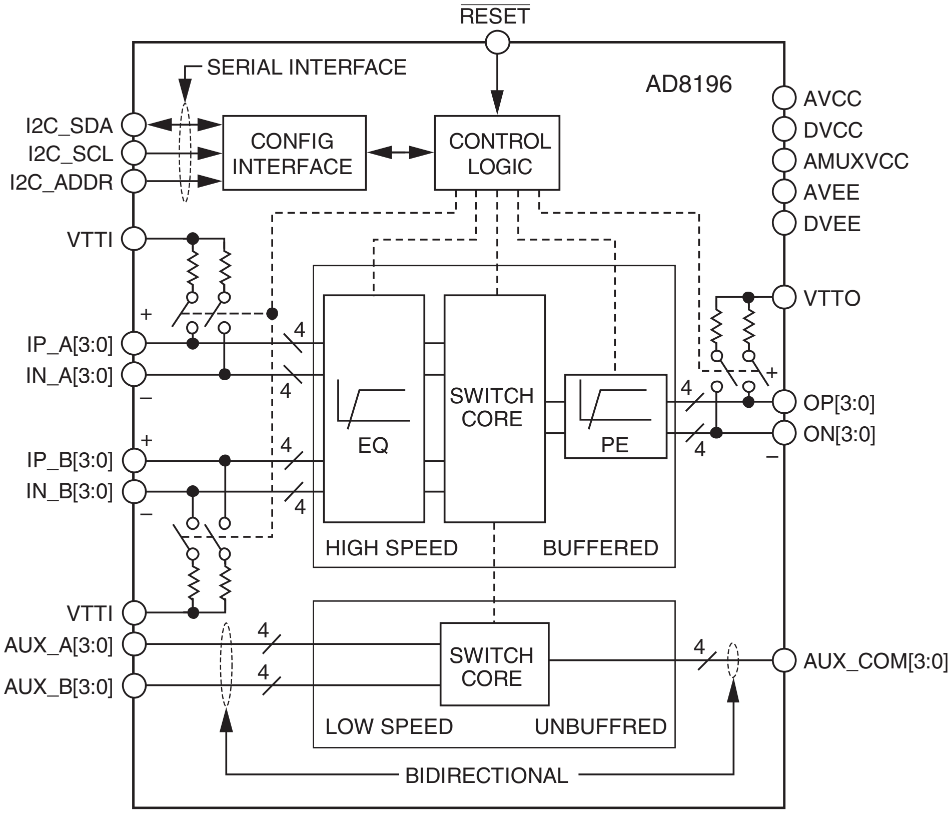
Power and Ground Pins

Pin Name	Pin #	Type	Description	Supply
CVCC18	12,24,25,80,91,107,119,131,143	Power	Digital Logic VCC	1.8V
CGND	11,23,79,90,106,118,130,142	Ground	Digital Logic GND	
IOVCC33	6,18,32,74,88,104,113,125,137	Power	Input/Output Pin VCC	3.3V
IOGND	4,17,31,73,87,103,112,124,136	Ground	Input/Output Pin GND	
AVCC33	38,42,46,50,56,60,64,68	Power	TMDS Analog VCC 3.3V	3.3V
AGND	36,41,45,49,53,59,63,67,71	Ground	TMDS Analog GND	
AVCC18	37,54,72	Power	TMDS Analog VCC 1.8V	1.8V
DVCC18	92	Power	Audio Clock Regeneration PLL Analog VCC. Must be connected to 1.8V	1.8V
DGND	93	Ground	Audio Clock Regeneration PLL Analog Ground	
XTALVCC	96	Power	Audio Clock Regeneration PLL Crystal Oscillator Power. Must be connected to 3.3V	3.3V
REGVCC	97	Power	Audio Clock Regeneration PLL Crystal Oscillator Power. Must be connected to 3.3V	3.3V

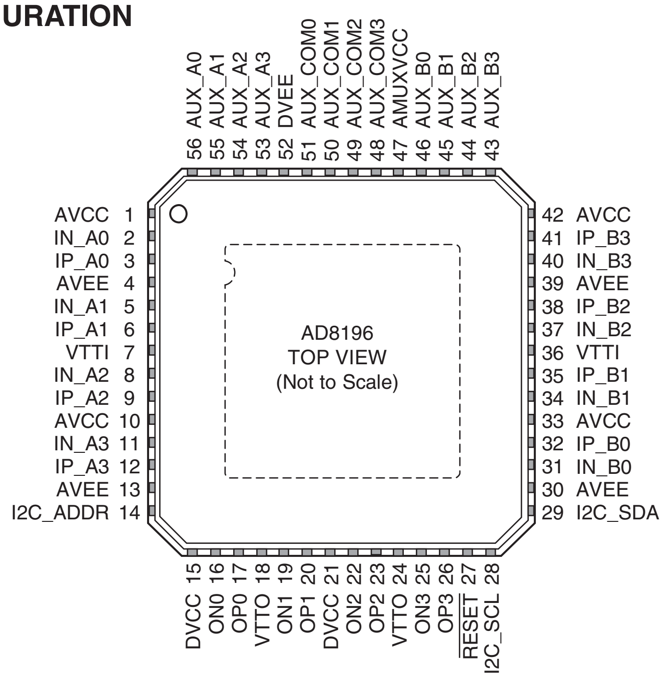
IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -53

Q8101 : AD8196 (HDMI/DVI Switch with Equalization)

BLOCK DIAGRAM


RESET
SERIAL INTERFACE
AD8196
I2C_SDA
I2C_SCL
I2C_ADDR
CONFIG INTERFACE
CONTROL LOGIC
AVCC
DVCC
AMUXVCC
AVEE
DVEE
VTTI
VTTO
IP_A[3:0]
IN_A[3:0]
IP_B[3:0]
IN_B[3:0]
EQ
SWITCH CORE
PE
OP[3:0]
ON[3:0]
HIGH SPEED
BUFFERED
VTTI
AUX_A[3:0]
AUX_B[3:0]
SWITCH CORE
AUX_COM[3:0]
LOW SPEED
UNBUFFRED
BIDIRECTIONAL
4
+
−

PIN CONFIGURATION


56 AUX_A0
55 AUX_A1
54 AUX_A2
53 AUX_A3
52 DVEE
51 AUX_COM0
50 AUX_COM1
49 AUX_COM2
48 AUX_COM3
47 AMUXVCC
46 AUX_B0
45 AUX_B1
44 AUX_B2
43 AUX_B3
AVCC 1
IN_A0 2
IP_A0 3
AVEE 4
IN_A1 5
IP_A1 6
VTTI 7
IN_A2 8
IP_A2 9
AVCC 10
IN_A3 11
IP_A3 12
AVEE 13
I2C_ADDR 14
42 AVCC
41 IP_B3
40 IN_B3
39 AVEE
38 IP_B2
37 IN_B2
36 VTTI
35 IP_B1
34 IN_B1
33 AVCC
32 IP_B0
31 IN_B0
30 AVEE
29 I2C_SDA
AD8196
TOP VIEW
(Not to Scale)
DVCC 15
ON0 16
OP0 17
VTTO 18
ON1 19
OP1 20
DVCC 21
ON2 22
OP2 23
VTTO 24
ON3 25
OP3 26
RESET 27
I2C_SCL 28

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -54

Q8101 : AD8196 (HDMI/DVI Switch with Equalization)

TERMINAL DESCRIPTION

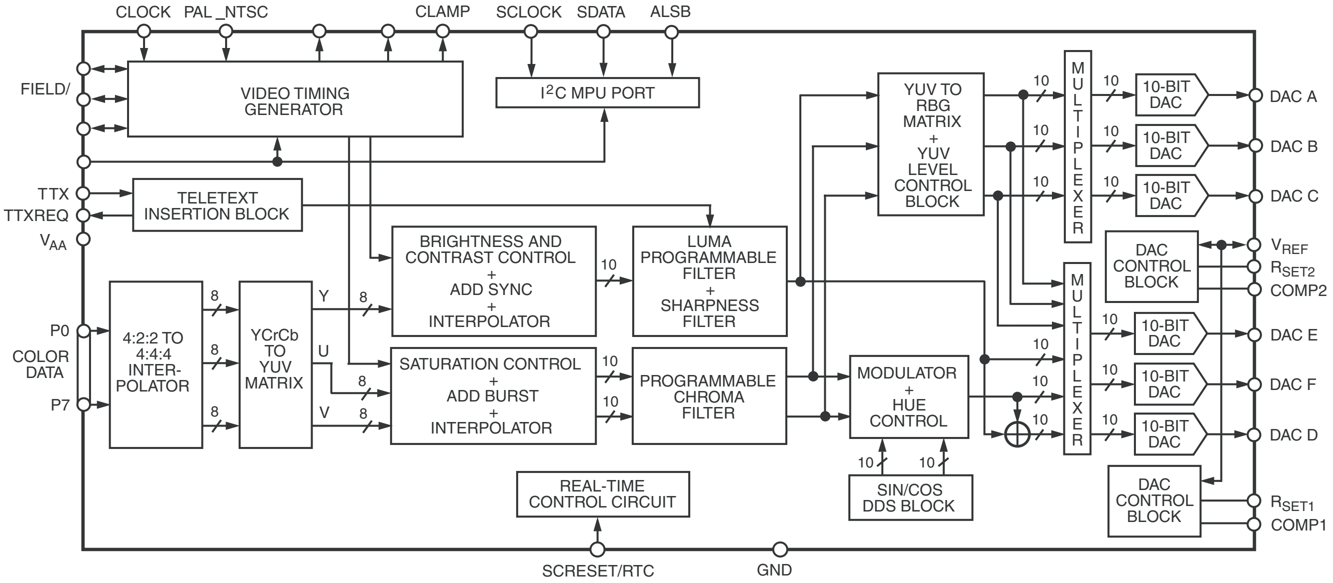
Pin No.	Mnemonic	Type	Description
1, 10, 33, 42	AVCC	Power	Positive Analog Supply. 3.3 V nominal.
2	IN_A0	HS I	High Speed Input Complement.
3	IP_A0	HS I	High Speed Input.
4, 13, 30, 39, ePAD	AVEE	Power	Negative Analog Supply. 0 V nominal.
5	IN_A1	HS I	High Speed Input Complement.
6	IP_A1	HS I	High Speed Input.
7, 36	VTTI	Power	Input Termination Supply. Nominally connected to AVCC.
8	IN_A2	HS I	High Speed Input Complement.
9	IP_A2	HS I	High Speed Input.
11	IN_A3	HS I	High Speed Input Complement.
12	IP_A3	HS I	High Speed Input.
14	I2C_ADDR	Control	I^2C Address LSB.
15, 21	DVCC	Power	Positive Digital Power Supply. 3.3 V nominal.
16	ON0	HS O	High Speed Output Complement.
17	OP0	HS O	High Speed Output.
18, 24	VTTO	Power	Output Termination Supply. Nominally connected to AVCC.
19	ON1	HS O	High Speed Output Complement.
20	OP1	HS O	High Speed Output.
22	ON2	HS O	High Speed Output Complement.
23	OP2	HS O	High Speed Output.
25	ON3	HS O	High Speed Output Complement.
26	OP3	HS O	High Speed Output.
27	$\overline{\text{RESET}}$	Control	Configuration Registers Reset. This pin is normally pulled up to DVCC.
28	I2C_SCL	Control	I^2C Clock.
29	I2C_SDA	Control	I^2C Data.
31	IN_B0	HS I	High Speed Input Complement.
32	IP_B0	HS I	High Speed Input.
34	IN_B1	HS I	High Speed Input Complement.
35	IP_B1	HS I	High Speed Input.
37	IN_B2	HS I	High Speed Input Complement.
38	IP_B2	HS I	High Speed Input.
40	IN_B3	HS I	High Speed Input Complement.
41	IP_B3	HS I	High Speed Input.
43	AUX_B3	LS I/O	Low Speed Input/Output.
44	AUX_B2	LS I/O	Low Speed Input/Output.
45	AUX_B1	LS I/O	Low Speed Input/Output.
46	AUX_B0	LS I/O	Low Speed Input/Output.
47	AMUXVCC	Power	Positive Auxiliary Switch Supply. 5 V typical.
48	AUX_COM3	LS I/O	Low Speed Common Input/Output.
49	AUX_COM2	LS I/O	Low Speed Common Input/Output.
50	AUX_COM1	LS I/O	Low Speed Common Input/Output.
51	AUX_COM0	LS I/O	Low Speed Common Input/Output.
52	DVEE	Power	Negative Digital and Auxiliary Switch Power Supply. 0 V nominal.
53	AUX_A3	LS I/O	Low Speed Input/Output.
54	AUX_A2	LS I/O	Low Speed Input/Output.
55	AUX_A1	LS I/O	Low Speed Input/Output.
56	AUX_A0	LS I/O	Low Speed Input/Output.

HS = high speed, LS = low speed, I = input, O = output.

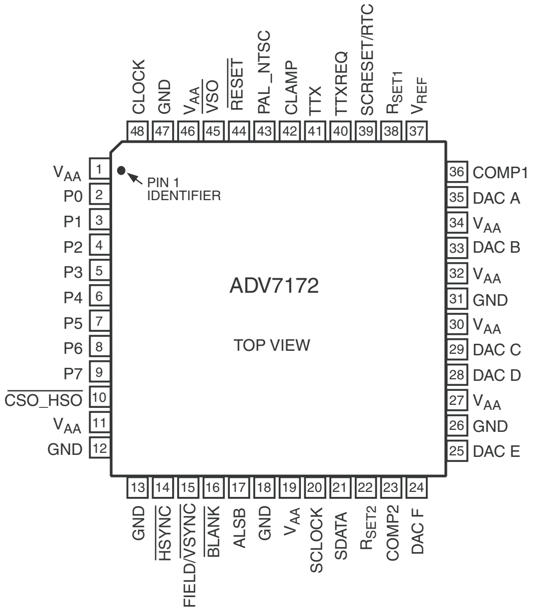
IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -55

Q8801: ADV7172 (Digital PAL/NTSC Video Encoder with six DACs)

BLOCK DIAGRAM


CLOCK
PAL _NTSC
CLAMP
SCLOCK
SDATA
ALSB
FIELD/
VIDEO TIMING GENERATOR
I²C MPU PORT
TTX
TTXREQ
TELETEXT INSERTION BLOCK
V_AA
P0
COLOR DATA
P7
4:2:2 TO 4:4:4 INTER-POLATOR
8
8
8
YCrCb TO YUV MATRIX
Y
U
V
8
8
8
BRIGHTNESS AND CONTRAST CONTROL + ADD SYNC + INTERPOLATOR
SATURATION CONTROL + ADD BURST + INTERPOLATOR
10
10
10
LUMA PROGRAMMABLE FILTER + SHARPNESS FILTER
PROGRAMMABLE CHROMA FILTER
YUV TO RBG MATRIX + YUV LEVEL CONTROL BLOCK
MODULATOR + HUE CONTROL
SIN/COS DDS BLOCK
10
10
MULTIPLEXER
MULTIPLEXER
10
10-BIT DAC
DAC A
DAC B
DAC C
DAC CONTROL BLOCK
V_REF
R_SET2
COMP2
DAC E
DAC F
DAC D
DAC CONTROL BLOCK
R_SET1
COMP1
REAL-TIME CONTROL CIRCUIT
SCRESET/RTC
GND

PIN CONFIGURATION


48 CLOCK
47 GND
46 V_AA
45 VSO
44 RESET
43 PAL_NTSC
42 CLAMP
41 TTX
40 TTXREQ
39 SCRESET/RTC
38 R_SET1
37 V_REF
1 V_AA
2 P0
3 P1
4 P2
5 P3
6 P4
7 P5
8 P6
9 P7
10 CSO_HSO
11 V_AA
12 GND
PIN 1 IDENTIFIER
ADV7172
TOP VIEW
36 COMP1
35 DAC A
34 V_AA
33 DAC B
32 V_AA
31 GND
30 V_AA
29 DAC C
28 DAC D
27 V_AA
26 GND
25 DAC E
13 GND
14 HSYNC
15 FIELD/VSYNC
16 BLANK
17 ALSB
18 GND
19 V_AA
20 SCLOCK
21 SDATA
22 R_SET2
23 COMP2
24 DAC F

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -56

Q8801: ADV7172 (Digital PAL/NTSC Video Encoder with six DACs)

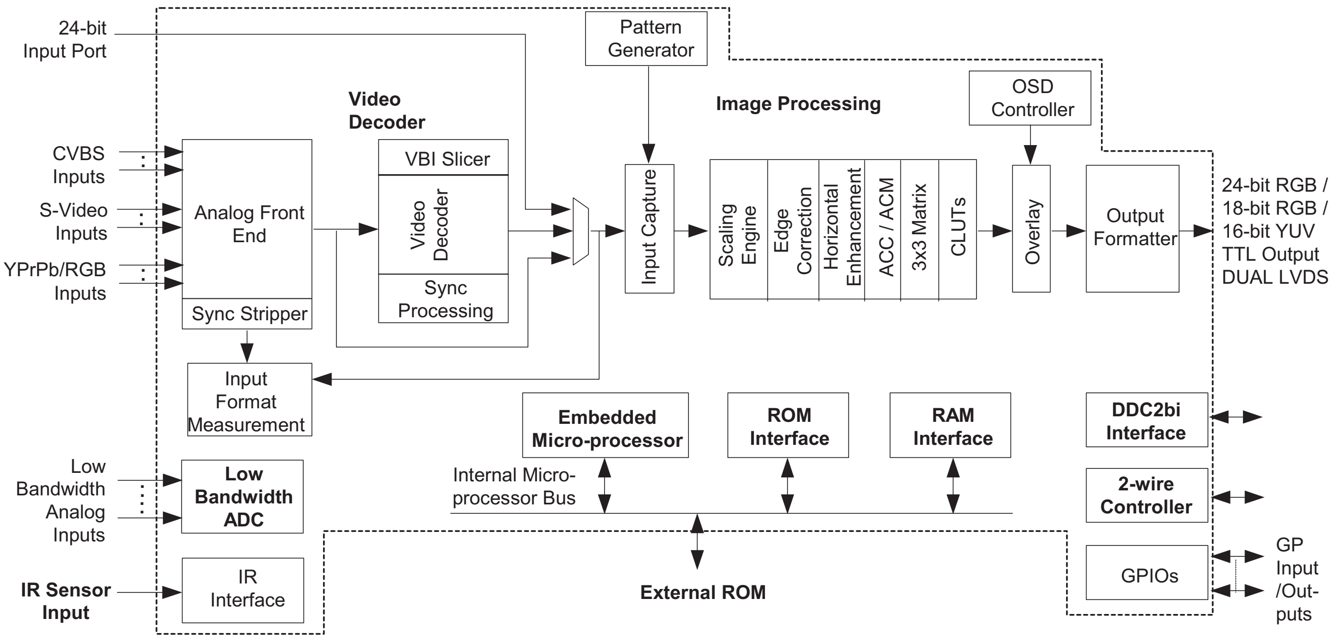
TERMINAL DESCRIPTION

Mnemonic	Input/Output	Function
P7–P0	I	8-Bit 4:2:2 Multiplexed YCrCb Pixel Port (P7-P0) P0 represents the LSB.
CLOCK	I	TTL Clock Input. Requires a stable 27 MHz reference clock for standard operation. Alternatively, a 24.5454 MHz (NTSC) or 29.5 MHz (PAL) can be used for square pixel operation.
$\overline{\text{HSYNC}}$	I/O	$\overline{\text{HSYNC}}$ (Modes 1 and 2) Control Signal. This pin may be configured to output (Master Mode) or as an input and accept (Slave Mode) Sync signals.
FIELD/$\overline{\text{VSYNC}}$	I/O	Dual Function FIELD (Mode 1) and $\overline{\text{VSYNC}}$ (Mode 2) Control Signal. This pin may be configured to output (Master Mode) or as an input (Slave Mode) and accept these control signals.
$\overline{\text{BLANK}}$	I/O	Video Blanking Control Signal. The pixel inputs are ignored when this is Logic Level "0." This signal is optional.
SCRESET/RTC	I	This pin can be configured as an input by setting MR42 and MR41 of Mode Register 4. It can be configured as a subcarrier reset pin, in which case a low-to-high transition on this pin will reset the subcarrier phase to Field 0. Alternatively it may be configured as a Real-Time Control (RTC) Input.
V_{REF}	I/O	Voltage Reference Input for DACs or Voltage Reference Output (1.235 V).
R_{SET1}	I	A 150 resistor connected from this pin to GND is used to control full-scale amplitudes of the Video Signals from DACs A, B, and C (the "large" DACs).
R_{SET2}	I	A 600 resistor connected from this pin to GND is used to control full-scale amplitudes of the Video Signals from DACs D, E, and F (the "small" DACs).
COMP1	O	Compensation Pin for DACs A, B, and C. Connect a 0.1 uF Capacitor from COMP to V_{AA}. For Optimum Dynamic Performance in Low Power Mode, the value of the COMP1 capacitor can be lowered to as low as 2.2 nF.
COMP2	O	Compensation Pin for DACs D, E, and F. Connect a 0.1 uF Capacitor from COMP to V_{AA}.
DAC A	O	GREEN/Composite/Y Analog Output. This DAC is capable of providing 34.66 mA output.
DAC B	O	BLUE/S-Video Y/U Analog Output. This DAC is capable of providing 34.66 mA output.
DAC C	O	RED/S-Video C/V Analog Output. This DAC is capable of providing 34.66 mA output.
DAC D	O	GREEN/Composite/Y Analog Output. This DAC is capable of providing 8.66 mA output.
DAC E	O	BLUE/S-Video Y/U Analog Output. This DAC is capable of providing 8.66 mA output.
DAC F	O	RED/S-Video C/V Analog Output. This DAC is capable of providing 8.66 mA output.
SCLOCK	I	MPU Port Serial Interface Clock Input.
SDATA	I/O	MPU Port Serial Data Input/Output.
CLAMP	O	TTL Output Signal to external circuitry to enable clamping of all video signals.
PAL_NTSC	I	Input signal to select PAL or NTSC mode of operation, pin set to Logic "1" selects PAL.
$\overline{\text{VSO}}$	O	$\overline{\text{VSO}}$ TTL Output Sync Signal.
$\overline{\text{CSO\_HSO}}$	O	Dual Function $\overline{\text{CSO}}$ or $\overline{\text{HSO}}$ TTL Output Sync Signal.
ALSB	I	TTL Address Input. This signal sets up the LSB of the MPU address.
$\overline{\text{RESET}}$	I	The input resets the on-chip timing generator and sets the ADV7172/ADV7173 into default mode. This is NTSC operation, Timing Slave Mode 0, DACs A, B, and C powered OFF, DACs D, E, and F powered ON, Composite and S-Video out.
TTX	I	Teletext Data Input Pin.
TTXREQ	O	Teletext Data Request output signal used to control teletext data transfer.
V_{AA}	I	Power Supply (3 V to 5 V).
GND	G	Ground Pin.

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -57

Q8001: FLI8125-LF-BC (Video Processor)

BLOCK DIAGRAM


24-bit Input Port
CVBS Inputs
S-Video Inputs
YPrPb/RGB Inputs
Low Bandwidth Analog Inputs
IR Sensor Input
Analog Front End
Sync Stripper
Input Format Measurement
Low Bandwidth ADC
IR Interface
Video Decoder
VBI Slicer
Video Decoder
Sync Processing
Pattern Generator
Input Capture
Image Processing
Scaling Engine
Edge Correction
Horizontal Enhancement
ACC / ACM
3x3 Matrix
CLUTs
OSD Controller
Overlay
Output Formatter
24-bit RGB / 18-bit RGB / 16-bit YUV TTL Output DUAL LVDS
Embedded Micro-processor
ROM Interface
RAM Interface
Internal Micro-processor Bus
External ROM
DDC2bi Interface
2-wire Controller
GPIOs
GP Input /Out-puts

FEATURES

INTEGRATED TRIPLE ADC

- RGB / YPbPr support up to 135MHz
- SCART – RGB + Fast Blank support
- Interlaced and progressive scan
- External OSD support

DIGITAL INPUT PORT

- 24-bit re-configurable input port

INTEGRATED 2D VIDEO DECODER

- Worldwide NTSC/PAL/SECAM support
- Macrovision / VCR trick mode support

EMBEDDED MICROPROCESSOR

- Turbo 186 core
- Internal RAM / ROM
- Serial Flash / Parallel ROM support
- 2-wire slave controller, UART / JTAG support
- Internal RESET Controller
- GPIOs , Low Bandwidth ADC – 6 input
- Infra-red Interface

SCALING ENGINE

- Independent H & V scaling factors
- 4:2:2 YPbPr or 4:4:4 RGB scaling
- Anamorphic scaling (non-linear)

FAROUDJA DCDI – EDGE™

- Edge Correction
  - Eliminates objectionable stair casing
  - Enhances clarity and realism
- Horizontal Enhancement
- Adaptive Contrast and Color
- Active Color Management

DIGITAL OUTPUT

- 18/24-bit 85Mhz TTL output
- Dual LVDS up to SXGA
- Energy Spectrum Management for reducing EMI
- Programmable CLUT for gamma correction

OSD CONTROLLER

- Up to 4 windows: 1, 2 or 4-bits per pixel color
- Programmable Font scalar to meet Teletext requirements.

VBI SLICER

- V-Chip, Closed Captioning, XDS, CGMS, WSS decode
- Teletext 1.5 support

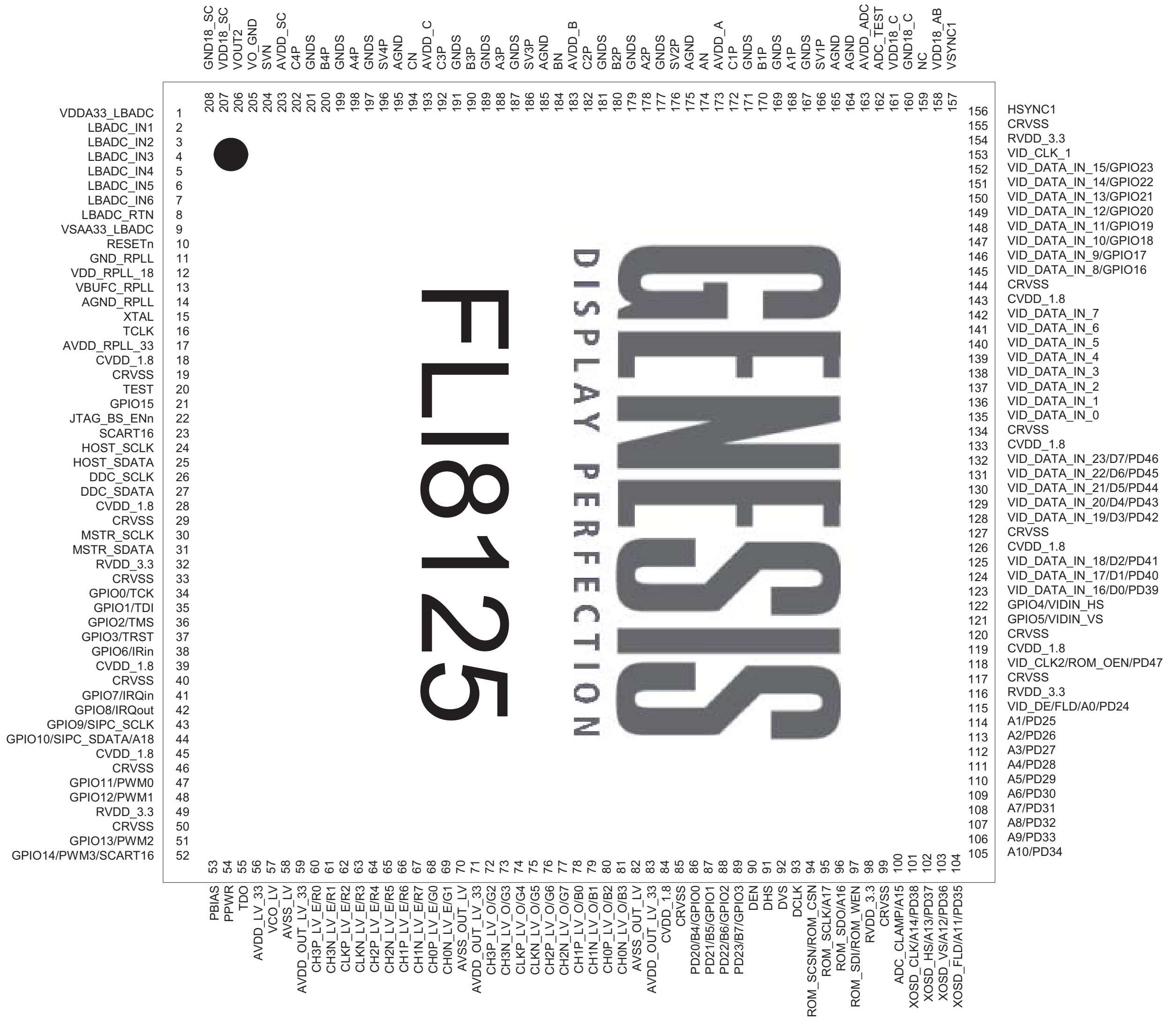
JTAG SUPPORT

- Boundary Scan support

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -58

Q8001: FLI8125-LF-BC (Video Processor)

PIN CONFIGURATION


FLI8125
GENESIS
DISPLAY PERFECTION
1 VDDA33_LBADC
2 LBADC_IN1
3 LBADC_IN2
4 LBADC_IN3
5 LBADC_IN4
6 LBADC_IN5
7 LBADC_IN6
8 LBADC_RTN
9 VSAA33_LBADC
10 RESETn
11 GND_RPLL
12 VDD_RPLL_18
13 VBUFC_RPLL
14 AGND_RPLL
15 XTAL
16 TCLK
17 AVDD_RPLL_33
18 CVDD_1.8
19 CRVSS
20 TEST
21 GPIO15
22 JTAG_BS_ENn
23 SCART16
24 HOST_SCLK
25 HOST_SDATA
26 DDC_SCLK
27 DDC_SDATA
28 CVDD_1.8
29 CRVSS
30 MSTR_SCLK
31 MSTR_SDATA
32 RVDD_3.3
33 CRVSS
34 GPIO0/TCK
35 GPIO1/TDI
36 GPIO2/TMS
37 GPIO3/TRST
38 GPIO6/IRin
39 CVDD_1.8
40 CRVSS
41 GPIO7/IRQin
42 GPIO8/IRQout
43 GPIO9/SIPC_SCLK
44 GPIO10/SIPC_SDATA/A18
45 CVDD_1.8
46 CRVSS
47 GPIO11/PWM0
48 GPIO12/PWM1
49 RVDD_3.3
50 CRVSS
51 GPIO13/PWM2
52 GPIO14/PWM3/SCART16
53 PBIAS
54 PPWR
55 TDO
56 AVDD_LV_33
57 VCO_LV
58 AVSS_LV
59 AVDD_OUT_LV_33
60 CH3P_LV_E/R0
61 CH3N_LV_E/R1
62 CLKP_LV_E/R2
63 CLKN_LV_E/R3
64 CH2P_LV_E/R4
65 CH2N_LV_E/R5
66 CH1P_LV_E/R6
67 CH1N_LV_E/R7
68 CH0P_LV_E/G0
69 CH0N_LV_E/G1
70 AVSS_OUT_LV
71 AVDD_OUT_LV_33
72 CH3P_LV_O/G2
73 CH3N_LV_O/G3
74 CLKP_LV_O/G4
75 CLKN_LV_O/G5
76 CH2P_LV_O/G6
77 CH2N_LV_O/G7
78 CH1P_LV_O/B0
79 CH1N_LV_O/B1
80 CH0P_LV_O/B2
81 CH0N_LV_O/B3
82 AVSS_OUT_LV
83 AVDD_OUT_LV_33
84 CVDD_1.8
85 CRVSS
86 PD20/B4/GPIO0
87 PD21/B5/GPIO1
88 PD22/B6/GPIO2
89 PD23/B7/GPIO3
90 DEN
91 DHS
92 DVS
93 DCLK
94 ROM_SCSN/ROM_CSN
95 ROM_SCLK/A17
96 ROM_SDO/A16
97 ROM_SDI/ROM_WEN
98 RVDD_3.3
99 CRVSS
100 ADC_CLAMP/A15
101 XOSD_CLK/A14/PD38
102 XOSD_HS/A13/PD37
103 XOSD_VS/A12/PD36
104 XOSD_FLD/A11/PD35
105 A10/PD34
106 A9/PD33
107 A8/PD32
108 A7/PD31
109 A6/PD30
110 A5/PD29
111 A4/PD28
112 A3/PD27
113 A2/PD26
114 A1/PD25
115 VID_DE/FLD/A0/PD24
116 RVDD_3.3
117 CRVSS
118 VID_CLK2/ROM_OEN/PD47
119 CVDD_1.8
120 CRVSS
121 GPIO5/VIDIN_VS
122 GPIO4/VIDIN_HS
123 VID_DATA_IN_16/D0/PD39
124 VID_DATA_IN_17/D1/PD40
125 VID_DATA_IN_18/D2/PD41
126 CVDD_1.8
127 CRVSS
128 VID_DATA_IN_19/D3/PD42
129 VID_DATA_IN_20/D4/PD43
130 VID_DATA_IN_21/D5/PD44
131 VID_DATA_IN_22/D6/PD45
132 VID_DATA_IN_23/D7/PD46
133 CVDD_1.8
134 CRVSS
135 VID_DATA_IN_0
136 VID_DATA_IN_1
137 VID_DATA_IN_2
138 VID_DATA_IN_3
139 VID_DATA_IN_4
140 VID_DATA_IN_5
141 VID_DATA_IN_6
142 VID_DATA_IN_7
143 CVDD_1.8
144 CRVSS
145 VID_DATA_IN_8/GPIO16
146 VID_DATA_IN_9/GPIO17
147 VID_DATA_IN_10/GPIO18
148 VID_DATA_IN_11/GPIO19
149 VID_DATA_IN_12/GPIO20
150 VID_DATA_IN_13/GPIO21
151 VID_DATA_IN_14/GPIO22
152 VID_DATA_IN_15/GPIO23
153 VID_CLK_1
154 RVDD_3.3
155 CRVSS
156 HSYNC1
157 VSYNC1
158 VDD18_AB
159 NC
160 GND18_C
161 VDD18_C
162 ADC_TEST
163 AVDD_ADC
164 AGND
165 AGND
166 SV1P
167 GNDS
168 A1P
169 GNDS
170 B1P
171 GNDS
172 C1P
173 AVDD_A
174 AN
175 AGND
176 SV2P
177 GNDS
178 A2P
179 GNDS
180 B2P
181 GNDS
182 C2P
183 AVDD_B
184 BN
185 AGND
186 SV3P
187 GNDS
188 A3P
189 GNDS
190 B3P
191 GNDS
192 C3P
193 AVDD_C
194 CN
195 AGND
196 SV4P
197 GNDS
198 A4P
199 GNDS
200 B4P
201 GNDS
202 C4P
203 AVDD_SC
204 SVN
205 VO_GND
206 VOUT2
207 VDD18_SC
208 GND18_SC

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -59

Q8001: FLI8125-LF-BC (Video Processor)

TERMINAL DESCRIPTION(1/8)

Analog Input Port

Pin Name	No.	I/O	Description
VDD18_AB	158	AP	Analog Power (1.8V) for A & B Channels. Must be bypassed with 0.1uF capacitor to the analog system ground plane.
NC	159		No Connection. Leave this pin open for normal operation.
GND18_C	160	AG	Analog Ground (1.8V Return) for C channel. Must be directly connected to the analog system ground plane on board.
VDD18_C	161	AP	Analog Power (1.8V) for C Channel. Must be bypassed with 0.1uF capacitor to the analog system ground plane.
ADC_TEST	162	O	Analog Front End Test O/P. Leave this Pin open. Used for factory testing purpose only.
AVDD_ADC	163	AP	Analog Power (3.3V) for ADC. Must be bypassed with 0.1uF capacitor to the analog system ground plane.
AGND	164	AG	Analog Ground. Must be directly connected to the analog system ground plane on board.
AGND	165	AG	Analog Ground. Must be directly connected to the analog system ground plane on board.
SV1P	166	AI	Positive analog sync input for channel 1. The input has to be AC coupled using a series 20 Ohm resistor and 0.1uF Capacitor network.
GNDS	167	AG	Analog Ground. Must be directly connected to the analog system ground plane on board.
A1P	168	AI	Positive analog input ‘A’ for channel 1. The input has to be AC coupled using a series 20 Ohm resistor and 0.1uF Capacitor network.
GNDS	169	AG	Analog Ground. Must be directly connected to the analog system ground plane on board.
B1P	170	AI	Positive analog input ‘B’ for channel 1. The input has to be AC coupled using a series 20 Ohm resistor and 0.1uF Capacitor network.
GNDS	171	AG	Analog Ground. Must be directly connected to the analog system ground plane on board.
C1P	172	AI	Positive analog input ‘C’ for channel 1. The input has to be AC coupled using a series 20 Ohm resistor and 0.1uF Capacitor network.
AVDD_A	173	AP	Analog Power (3.3V) for ADC of Channel-A. Must be bypassed with 0.1uF capacitor to the analog system ground plane.
AN	174	AI	Negative analog input ‘A’ for channels 1 through 4. This acts as the return Path for the Sources connected to Channel-A Inputs. This has to be AC coupled using a series 57.6 Ohm resistor and 0.1uF Capacitor network to Analog Ground Plane on board.
AGND	175	AG	Analog Ground. Must be directly connected to the analog system ground plane on board.
SV2P	176	AI	Positive analog sync input for channel 2. The input has to be AC coupled using a series 20 Ohm resistor and 0.1uF Capacitor network.
GNDS	177	AG	Analog Ground. Must be directly connected to the analog system ground plane on board.
A2P	178	AI	Positive analog input ‘A’ for channel 2. The input has to be AC coupled using a series 20 Ohm resistor and 0.1uF Capacitor network.
GNDS	179	AG	Analog Ground. Must be directly connected to the analog system ground plane on board.
B2P	180	AI	Positive analog input ‘B’ for channel 2. The input has to be AC coupled using a series 20 Ohm resistor and 0.1uF Capacitor network.
GNDS	181	AG	Analog Ground. Must be directly connected to the analog system ground plane on board.
C2P	182	AI	Positive analog input ‘C’ for channel 2. The input has to be AC coupled using a series 20 Ohm resistor and 0.1uF Capacitor network.
AVDD_B	183	AP	Analog Power (3.3V) for ADC of Channel-B. Must be bypassed with 0.1uF capacitor to the analog system ground plane.
BN	184	AI	Negative analog input ‘B’ for channels 1 through 4. This acts as the return Path for the Sources connected to Channel-B Inputs. This has to be AC coupled using a series 57.6 Ohm resistor and 0.1uF Capacitor network to Analog Ground Plane on board.
AGND	185	AG	Analog Ground. Must be directly connected to the analog system ground plane on board.

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -60

Q8001: FLI8125-LF-BC (Video Processor)

TERMINAL DESCRIPTION(2/8)

Analog Input Port

Pin Name	No.	I/O	Description
SV3P	186	AI	Positive analog sync input for channel 3. The input has to be AC coupled using a series 20 Ohm resistor and 0.1uF Capacitor network.
GNDS	187	AG	Analog Ground. Must be directly connected to the analog system ground plane on board.
A3P	188	AI	Positive analog input 'A' for channel 3. The input has to be AC coupled using a series 20 Ohm resistor and 0.1uF Capacitor network.
GNDS	189	AG	Analog Ground. Must be directly connected to the analog system ground plane on board.
B3P	190	AI	Positive analog input 'B' for channel 3. The input has to be AC coupled using a series 20 Ohm resistor and 0.1uF Capacitor network.
GNDS	191	AG	Analog Ground. Must be directly connected to the analog system ground plane on board.
C3P	192	AI	Positive analog input 'C' for channel 3. The input has to be AC coupled using a series 20 Ohm resistor and 0.1uF Capacitor network.
AVDD_C	193	AP	Analog Power (3.3V) for ADC of Channel-C. Must be bypassed with 0.1uF capacitor to the analog system ground plane.
CN	194	AI	Negative analog input 'C' for channels 1 through 4. This acts as the return Path for the Sources connected to Channel-C Inputs. This has to be AC coupled using a series 57.6 Ohm resistor and 0.1uF Capacitor network to Analog Ground Plane on board.
AGND	195	AG	Analog Ground. Must be directly connected to the analog system ground plane on board.
SV4P	196	AI	Positive analog sync input for channel 4. The input has to be AC coupled using a series 20 Ohm resistor and 0.1uF Capacitor network.
GNDS	197	AG	Analog Ground. Must be directly connected to the analog system ground plane on board.
A4P	198	AI	Positive analog input 'A' for channel 4. The input has to be AC coupled using a series 20 Ohm resistor and 0.1uF Capacitor network.
GNDS	199	AG	Analog Ground. Must be directly connected to the analog system ground plane on board.
B4P	200	AI	Positive analog input 'B' for channel 4. The input has to be AC coupled using a series 20 Ohm resistor and 0.1uF Capacitor network.
GNDS	201	AG	Analog Ground. Must be directly connected to the analog system ground plane on board.
C4P	202	AI	Positive analog input 'C' for channel 4. The input has to be AC coupled using a series 20 Ohm resistor and 0.1uF Capacitor network.
AVDD_SC	203	AP	Analog Power (3.3V) for ADC of SYNC Channel. Must be bypassed with 0.1uF capacitor to the analog system ground plane.
SVN	204	AI	Negative analog sync input for channels 1 through 4. This acts as the return Path for the Sources connected to SV Channel Inputs. This has to be AC coupled using a series 57.6 Ohm resistor and 0.1uF Capacitor network to Analog Ground Plane on board.
VO_GND	205	AG	Analog Ground. Must be directly connected to the analog system ground plane on board.
VOUT2	206	AO	Analog VOUT signal This is the Analog Video Output from the Decoder in the Composite Video format. This can be amplified and be fed to any video display device.
VDD18_SC	207	AP	Analog Power (1.8V) for SYNC Channel. Must be bypassed with 0.1uF capacitor to the analog system ground plane.
GND18_SC	208	AG	Analog Ground (1.8V Return) for SYNC channel. Must be directly connected to the analog system ground plane on board.

Low Bandwidth ADC Input Port

Pin Name	No	I/O	Description
VDDA33_LBADC	1	AP	Analog Power (3.3V) for Low Bandwidth ADC Block. Must be bypassed with 0.1uF capacitor.
LBADC_IN1	2	AI	Low Bandwidth Analog Input-1. The Input signal connected to this Pin, must be bypassed with a 0.1uF capacitor and could be in the range of 0V to 3.3V (peak to peak).
LBADC_IN2	3	AI	Low Bandwidth Analog Input-2. The Input signal connected to this Pin, must be bypassed with a 0.1uF capacitor and could be in the range of 0V to 3.3V (peak to peak).
LBADC_IN3	4	AI	Low Bandwidth Analog Input-3. The Input signal connected to this Pin, must be bypassed with a 0.1uF capacitor and could be in the range of 0V to 3.3V (peak to peak).
LBADC_IN4	5	AI	Low Bandwidth Analog Input-4. The Input signal connected to this Pin, must be bypassed with a 0.1uF capacitor and could be in the range of 0V to 3.3V (peak to peak).
LBADC_IN5	6	AI	Low Bandwidth Analog Input-5. The Input signal connected to this Pin, must be bypassed with a 0.1uF capacitor and could be in the range of 0V to 3.3V (peak to peak).

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Q8001: FLI8125-LF-BC (Video Processor)

TERMINAL DESCRIPTION(3/8)

Low Bandwidth ADC Input Port

Pin Name	No	I/O	Description
LBADC_IN6	7	AI	Low Bandwidth Analog Input-6. The Input signal connected to this Pin, must be bypassed with a 0.1uF capacitor and could be in the range of 0V to 3.3V (peak to peak).
LBADC_RTN	8	AG	This Pin provides the Return Path for LBADC inputs. Must be directly connected to the analog system ground plane on board.
VSSA33_LBADC	9	AG	Analog Ground for Low Bandwidth ADC Block. Must be directly connected to the analog system ground plane on board.

RCLK PLL Pins

Pin Name	No	I/O	Description
GND_RPLL	11	DG	Digital GND for ADC clocking circuit. Must be directly connected to the digital system ground plane.
VDD_RPLL_18	12	DP	Digital power (1.8V) for ADC digital logic. Must be bypassed with capacitor to Ground Plane.
VBUFC_RPLL	13	O	Test Output. Leave this Pin Open. This is reserved for Factory Testing Purpose.
AGND_RPLL	14	AG	Analog ground for the Reference DDS PLL. Must be directly connected to the analog system ground plane.
XTAL	15	AO	Crystal oscillator output. Connect to external crystal.
TCLK	16	AI	Reference clock (TCLK) from the 19.6608 MHz crystal oscillator. Connect to external crystal/ oscillator.
AVDD_RPLL_33	17	AP	Analog Power (3.3V) for RCLK PLL. Must be bypassed with 0.1uF capacitor.

Digital Video Input Port

Pin Name	No	I/O	Description
VID_CLK_1	153	I	Video port data clock input meant for Video Input – 1. Up to 135Mhz [Input, 5V-tolerant]
VIDIN_HS	122	I	When Video Input – 1 is in BT656 Mode, this Pin acts as Horizontal Sync Input for Video Input – 2. OR when Video Input – 1 is in 16 Bit Mode this Pin acts as Horizontal Sync Input for Video Input – 1. OR this Pin acts as Horizontal Sync Input for 24 Bit Video Input
VIDIN_VS	121	I	When Video Input – 1 is in BT656 Mode, this Pin acts as Vertical Sync Input for Video Input – 2. OR when Video Input – 1 is in 16 Bit Mode this Pin acts as Vertical Sync Input for Video Input – 1. OR this Pin acts as Vertical Sync Input for 24 Bit Video Input
VID_DATA_IN_0 VID_DATA_IN_1 VID_DATA_IN_2 VID_DATA_IN_3 VID_DATA_IN_4 VID_DATA_IN_5 VID_DATA_IN_6 VID_DATA_IN_7	135 136 137 138 139 140 141 142	IO	Input YUV data in 8-bit BT656 of Video Input – 1 [Bi-Directional, 5V-tolerant] OR Input Y Data in case of 16 Bit Video Input (CCIR601) of Video Input – 1 OR Input Green Data in case of 24 Bit Video Input
VID_DATA_IN_8 VID_DATA_IN_9 VID_DATA_IN_10 VID_DATA_IN_11 VID_DATA_IN_12 VID_DATA_IN_13 VID_DATA_IN_14 VID_DATA_IN_15	145 146 147 148 149 150 151 152	IO	Input Pr / Pb Data in case of 16 Bit Video Input (CCIR601) of Video Input – 1 OR Input Blue/ Pb Data in case of 24 Bit Video Input
VID_DATA_IN_16 VID_DATA_IN_17 VID_DATA_IN_18 VID_DATA_IN_19 VID_DATA_IN_20 VID_DATA_IN_21 VID_DATA_IN_22	123 124 125 128 129 130 131	IO	Input Red / Pr Data in case of 24 Bit Video Input OR Video Input – 2 in 8-bit with Embedded Sync / Separate Sync

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -62

Q8001: FLI8125-LF-BC (Video Processor)

TERMINAL DESCRIPTION(4/8)

Digital Video Input Port

Pin Name	No	I/O	Description
VID_DATA_IN_23	132	IO	(Same as previous page)
VID_CLK2	118	I	Video port data clock input meant for Video Input – 2. Up to 135Mhz [Input, 5V-tolerant]
VID_DE/FLD	115	I	Video Active Signal Input or the Field Signal Input from external Digital Video Source.

System Interface

Pin Name	No	I/O	Description
RESETn	10	I	Hardware Reset (active low) [Schmitt trigger, 5v-tolerant] Connect to ground with 0.01uF capacitor.
TEST	20	I	For normal mode of operation connect this Pin to Ground. Has an internal pulldown resistor of 50 K ohm.
GPIO15	21	IO	This pin is available as a general-purpose input/output port. Also it is optionally programmable to give out the external chip select signal meant for external SRAM. Connect pullup resistor to supply if external SRAM used. It is also address line A19 when 1MB parallel flash is used.
JTAG_BS_ENn	22	I	JTAG Boundary Scan enabling pin. Has an internal pulldown resistor of 50 K ohm. If this pin is left open or pulled down, Boundary Scan Mode is enabled. If this pin is pulled high, Boundary Scan functionality is not available, and pins 34~37 are available as GPIO 0~3
SCART16	23	I	This pin can be programmed to sense the Fast Blank Input signal from a SCART I/P source
HOST_SCLK	24	IO	Host input clock or 186 UART Data In or JTAG clock signal. [Input, Schmitt trigger, 5V-tolerant]
HOST_SDATA	25	IO	Host input data or 186 UART Data Out or JTAG mode signal. [Bi-directional, Schmitt trigger, slew rate limited, 5V-tolerant]
DDC_SCLK	26	IO	DDC2Bi clock for VGA Port
DDC_SDATA	27	IO	DDC2Bi data for VGA Port
MSTR_SCLK	30	O	Clock signal from Master Serial 2 Wire Interface Controller
MSTR_SDATA	31	IO	Data signal meant for Master Serial 2 Wire interface Controller
GPIO0/TCK	34	IO	This Pin accepts the Input Clock signal in case of Boundary Scan Mode. Else, this pin is available as General Purpose Input/output Port.
GPIO1/TDI	35	IO	This Pin accepts the Input Data signal in case of Boundary Scan Mode. Else, this pin is available as General Purpose Input/output Port.
GPIO2/TMS	36	IO	This Pin accepts the Input Test Mode Select signal in case of Boundary Scan Mode. Else, this pin is available as General Purpose Input/output Port.
GPIO3/TRST	37	IO	This Pin accepts the Boundary Scan Reset signal in case of Boundary Scan Mode. Else, this pin is available as General Purpose Input/output Port.
GPIO6/IRin	38	IO	Input from Infra Red Decoder can be connected to this Pin. Else, this pin is available as General Purpose Input/output Port.
GPIO7/IRQin	41	IO	Input Interrupt Request signal can be connected to this Pin. Else, this pin is available as General Purpose Input/output Port.
GPIO8/IRQout	42	IO	This Pin will give out the Interrupt Signal to interrupt external Micro. Else, this pin is available as General Purpose Input/output Port.
GPIO9/SIPC_SCLK	43	IO	This Pin accepts the Clock signal from External Serial 2 Wire interface Bus if FLI8125 is programmed to be in Slave mode. Else, this pin is available as General Purpose Input/output Port.
GPIO10/SIPC_SDATA/ A18	44	IO	This Pin acts as the Data I/O signal when used with External Serial 2 Wire interface Bus if FLI8125 is programmed to be in Slave mode. Or this Pin is programmable to give out Address line 18 from the Internal Micro when used with 512K External Memory. Else, this pin is available as General Purpose Input/output Port.
GPIO11/PWM0	47	IO	This Pin can be programmed to give out Pulse Width Modulated Output Pulses for external use. Else, this pin is available as General Purpose Input/output Port.
GPIO12/PWM1	48	IO	This Pin can be programmed to give out Pulse Width Modulated Output Pulses for external use. Else, this pin is available as General Purpose Input/output Port.

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -63

Q8001: FLI8125-LF-BC (Video Processor)

TERMINAL DESCRIPTION(5/8)

System Interface

Pin Name	No	I/O	Description
GPIO13/PWM2	51	IO	This Pin can be programmed to give out Pulse Width Modulated Output Pulses for external use. Else, this pin is available as General Purpose Input/output Port.
GPIO14/PWM3/ SCART16	52	IO	This Pin can be programmed to give out Pulse Width Modulated Output Pulses for external use. Or it can be programmed to sense the Fast Blank Input signal from a SCART I/P source. Else, this pin is available as General Purpose Input/output Port.
TDO	55	O	This Pin provides the Output Data in case of Boundary Scan Mode.
HSYNC1	156	I	Horizontal Sync signal Input-1. Used when Analog RGB component signal carries separate HSYNC signal. Has programmable Schmitt trigger.
VSYNC1	157	I	Vertical Sync signal Input-1. Used when Analog RGB component signal carries separate VSYNC signal. Has programmable Schmitt trigger.
XOSD_CLK	101	O	Clock Output meant for External OSD Controller
XOSD_HS	102	O	Horizontal Sync Output meant for External OSD Controller
XOSD_VS	103	O	Vertical Sync Output meant for External OSD Controller
XOSD_FLD	104	O	Field Signal Output meant for External OSD Controller
PD20/B4/GPIO0 PD21/B5/GPIO1 PD22/B6/GPIO2 PD23/B7/GPIO3	86 87 88 89	IO	These Pins provide the Panel Data as shown in the TTL Display Interface Table below. These are available as General Purpose Input / Output Pins when not used as Panel Data.

LVDS Display Interface

Pin Name	No	I/O	Description
PBIAS	53	O	Panel Bias Control (backlight enable) [Tri-state output, 5V- tolerant]
PPWR	54	O	Panel Power Control [Tri-state output, 5V- tolerant]
AVDD_LV_33	56	DP	Digital Power for LVDS Block. Connect to digital 3.3V supply.
VCO_LV	57	O	Reserved. Output for Testing Purpose only at Factory.
AVSS_LV	58	G	Ground for LVDS outputs.
AVDD_OUT_LV_33	59	DP	Digital Power for LVDS outputs. Connect to digital 3.3V supply.
CH3P_LV_E	60	O	These form the Differential Data Output for Channel – 3 (Even).
CH3N_LV_E	61	O	
CLKP_LV_E	62	O	These form the Differential Clock Output Even Channel.
CLKN_LV_E	63	O	
CH2P_LV_E	64	O	These form the Differential Data Output for Channel – 2 (Even).
CH2N_LV_E	65	O	
CH1P_LV_E	66	O	These form the Differential Data Output for Channel – 1 (Even).
CH1N_LV_E	67	O	
CH0P_LV_E	68	O	These form the Differential Data Output for Channel – 0 (Even).
CH0N_LV_E	69	O	
AVSS_OUT_LV	70	G	Ground for LVDS outputs.
AVDD_OUT_LV_33	71	DP	Digital Power for LVDS outputs. Connect to digital 3.3V supply.
CH3P_LV_O	72	O	These form the Differential Data Output for Channel – 3 (Odd).
CH3N_LV_O	73	O	
CLKP_LV_O	74	O	These form the Differential Clock Output Odd Channel.
CLKN_LV_O	75	O	
CH2P_LV_O	76	O	These form the Differential Data Output for Channel – 2 (Odd).
CH2N_LV_O	77	O	
CH1P_LV_O	78	O	These form the Differential Data Output for Channel – 1 (Odd).
CH1N_LV_O	79	O	
CH0P_LV_O	80	O	These form the Differential Data Output for Channel – 0 (Odd).
CH0N_LV_O	81	O	

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -64

Q8001: FLI8125-LF-BC (Video Processor)

TERMINAL DESCRIPTION(6/8)

LVDS Display Interface

Pin Name	No	I/O	Description
AVSS_OUT_LV	82	G	Ground for LVDS outputs.
AVDD_OUT_LV_33	83	DP	Digital Power for LVDS outputs. Connect to digital 3.3V supply.

TTL Display Interface

Pin Name	No	I/O	Description For 8-bit panels	For 6-bit panels
PBIAS	53	O	Panel Bias Control (backlight enable) [Tri-state output, 5V- tolerant]	
PPWR	54	O	Panel Power Control [Tri-state output, 5V- tolerant]	
AVDD_LV_33	56	DP	Digital Power for TTL Block. Connect to digital 3.3V supply.	
VCO_LV	57	O	Reserved. Output for Testing Purpose only at Factory.	
AVSS_LV	58	G	Ground for TTL outputs.	
AVDD_OUT_LV_33	59	DP	Digital Power for TTL outputs. Connect to digital 3.3V supply.	
R0	60	O	Red channel bit 0 (Even)	Not used.
R1	61	O	Red channel bit 1 (Even)	Not used.
R2	62	O	Red channel bit 2 (Even)	Red channel bit 0 (Even)
R3	63	O	Red channel bit 3 (Even)	Red channel bit 1 (Even)
R4	64	O	Red channel bit 4 (Even)	Red channel bit 2 (Even)
R5	65	O	Red channel bit 5 (Even)	Red channel bit 3 (Even)
R6	66	O	Red channel bit 6 (Even)	Red channel bit 4 (Even)
R7	67	O	Red channel bit 7 (Even)	Red channel bit 5 (Even)
G0	68	O	Green channel bit 0 (Even)	Not used.
G1	69	O	Green channel bit 1 (Even)	Not used.
AVSS_OUT_LV	70	G	Ground for TTL outputs.	
AVDD_OUT_LV_33	71	DP	Digital Power for TTL outputs. Connect to digital 3.3V supply.	
G2	72	O	Green channel bit 2 (Even)	Green channel bit 0 (Even)
G3	73	O	Green channel bit 3 (Even)	Green channel bit 1 (Even)
G4	74	O	Green channel bit 4 (Even)	Green channel bit 2 (Even)
G5	75	O	Green channel bit 5 (Even)	Green channel bit 3 (Even)
G6	76	O	Green channel bit 6 (Even)	Green channel bit 4 (Even)
G7	77	O	Green channel bit 7 (Even)	Green channel bit 5 (Even)
B0	78	O	Blue channel bit 0 (Even)	Not used.
B1	79	O	Blue channel bit 1 (Even)	Not used.
B2	80	O	Blue channel bit 2 (Even)	Blue channel bit 0 (Even)
B3	81	O	Blue channel bit 3 (Even)	Blue channel bit 1 (Even)
AVSS_OUT_LV	82	G	Ground for TTL outputs.	
AVDD_OUT_LV_33	83	DP	Digital Power for TTL outputs. Connect to digital 3.3V supply.	
PD20/B4	86	O	Blue channel bit 4 (Even)	Blue channel bit 2 (Even)
PD21/B5	87	O	Blue channel bit 5 (Even)	Blue channel bit 3 (Even)
PD22/B6	88	O	Blue channel bit 6 (Even)	Blue channel bit 4 (Even)
PD23/B7	89	O	Blue channel bit 7 (Even)	Blue channel bit 5 (Even)
DEN	90	O	Display Data Enable	
DHS	91	O	Display Horizontal Sync.	
DVS	92	O	Display Vertical Sync.	
DCLK	93	O	Display Pixel Clock	
PD24	115	O	Red channel bit 0 (Odd)	Not used.
PD25	114	O	Red channel bit 1 (Odd)	Not used.
PD26	113	O	Red channel bit 2 (Odd)	Red channel bit 0 (Odd)
PD27	112	O	Red channel bit 3 (Odd)	Red channel bit 1 (Odd)

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -65

Q8001: FLI8125-LF-BC (Video Processor)

TERMINAL DESCRIPTION(7/8)

TTL Display Interface

Pin Name	No	I/O	Description For 8-bit panels	For 6-bit panels
PD28	111	O	Red channel bit 4 (Odd)	Red channel bit 2 (Odd)
PD29	110	O	Red channel bit 5 (Odd)	Red channel bit 3 (Odd)
PD30	109	O	Red channel bit 6 (Odd)	Red channel bit 4 (Odd)
PD31	108	O	Red channel bit 7 (Odd)	Red channel bit 5 (Odd)
PD32	107	O	Green channel bit 0 (Odd)	Not used.
PD33	106	O	Green channel bit 1 (Odd)	Not used.
PD34	105	O	Green channel bit 2 (Odd)	Green channel bit 0 (Odd)
PD35	104	O	Green channel bit 3 (Odd)	Green channel bit 1 (Odd)
PD36	103	O	Green channel bit 4 (Odd)	Green channel bit 2 (Odd)
PD37	102	O	Green channel bit 5 (Odd)	Green channel bit 3 (Odd)
PD38	101	O	Green channel bit 6 (Odd)	Green channel bit 4 (Odd)
PD39	123	O	Green channel bit 7 (Odd)	Green channel bit 5 (Odd)
PD40	124	O	Blue channel bit 0 (Odd)	Not used.
PD41	125	O	Blue channel bit 1 (Odd)	Not used.
PD42	128	O	Blue channel bit 2 (Odd)	Blue channel bit 0 (Odd)
PD43	129	O	Blue channel bit 3 (Odd)	Blue channel bit 1 (Odd)
PD44	130	O	Blue channel bit 4 (Odd)	Blue channel bit 2 (Odd)
PD45	131	O	Blue channel bit 5 (Odd)	Blue channel bit 3 (Odd)
PD46	132	O	Blue channel bit 6 (Odd)	Blue channel bit 4 (Odd)
PD47	118	O	Blue channel bit 7 (Odd)	Blue channel bit 5 (Odd)

Parallel/Serial ROM/ SRAM Interface

Pin Name	No	I/O	Description
A19	21	O	Address Signal A19 for 1M X 8 PROM. This pin also acts as Chip select for external SRAM when PROM of 512KB or less is used. Else this pin acts as GPIO15.
A18	44	O	Address Signal A18 for 512K X 8 PROM / SRAM. Else this pin acts as GPIO10.
A17 A16 A15 A14 A13 A12 A11 A10 A9 A8 A7 A6 A5 A4 A3 A2 A1 A0	95 96 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115	O	256K x8 PROM /SRAM Address. Some of these pins also have bootstrap functionality. For serial SPI ROM interface: - ROM_ADDR17 will be Serial Clock (ROM_SCLK) - ROM_ADDR16 will be Serial Data Output (ROM_SDO)
D7 D6 D5 D4 D3 D2 D1 D0	132 131 130 129 128 125 124 123	IO	External PROM / SRAM data input.

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -66

Q8001: FLI8125-LF-BC (Video Processor)

TERMINAL DESCRIPTION(8/8)

Parallel/Serial ROM/ SRAM Interface

ROM_OEN	118	O	External PROM / SRAM data Output Enable.
ROM_SDI/ ROM_WEN	97	O	External PROM / SRAM data Write Enable (for In-System-Programming of FLASH) or Serial Data Input (SDI) for SPI ROM interface.
ROM_SCSN/ ROM_CSN	94	O	External PROM / SRAM data Chip Select or Serial PROM Chip Select (ROM_SCSN) for SPI ROM interface.

Digital Power and Ground

Pin Name	No	I/O	Description
RVDD_3.3	32 49 98 116 154	P	Ring VDD. Connect to digital 3.3V.
CVDD_1.8	18 28 39 45 84 119 126 133 143	P	Core VDD. Connect to digital 1.8V.
CRVSS	19 29 33 40 46 50 85 99 117 120 127 134 144 155	G	Chip ground for core and ring.

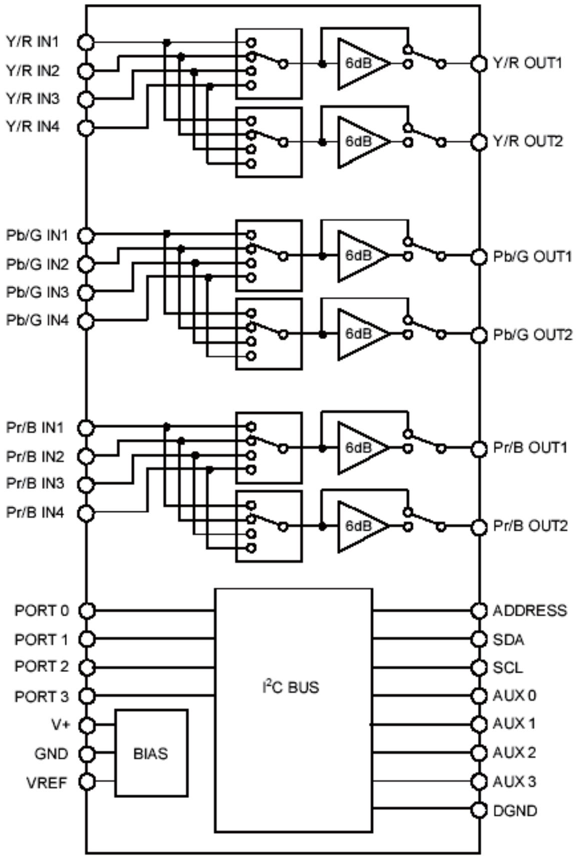
JTAG Boundary Scan

Pin Name	No	I/O	Description
TCK	34	I	JTAG Boundary Scan TCK signal
TDO	55	O	JTAG Boundary Scan TDO signal
TDI	35	I	JTAG Boundary Scan TDI signal. Pad has internal 50K pull-up resistor.
TMS	36	I	JTAG Boundary Scan TMS signal. Pad has internal 50K pull-up resistor.
TRST	37	I	JTAG Boundary Scan RST signal. Pad has internal 50K pull-up resistor.

IC BLOCK DIAGRAM AND TERMINAL DESCRIPTIONS -67

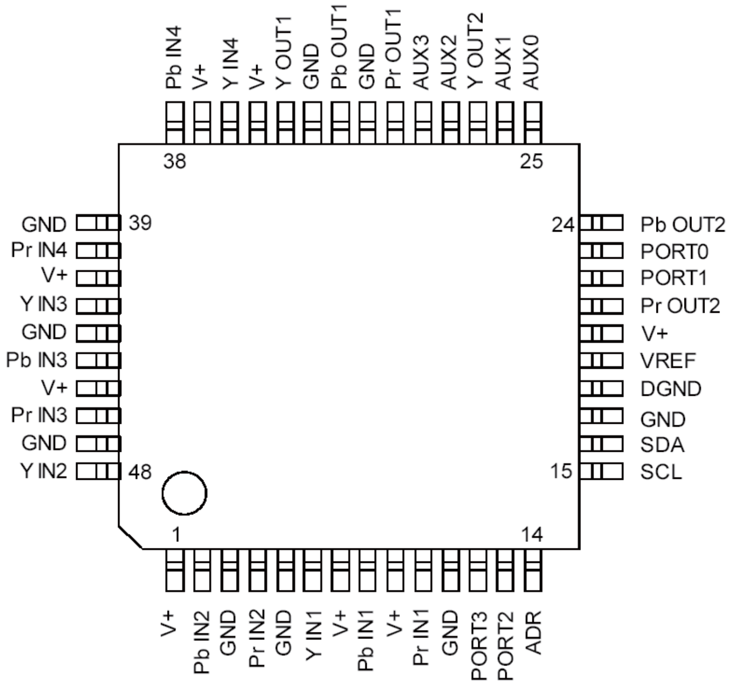
Q2201: NJW1321FP1 (Video Switch, 100MHz)

BLOCK DIAGRAM



Y/R IN1
Y/R IN2
Y/R IN3
Y/R IN4
6dB
6dB
Y/R OUT1
Y/R OUT2
Pb/G IN1
Pb/G IN2
Pb/G IN3
Pb/G IN4
6dB
6dB
Pb/G OUT1
Pb/G OUT2
Pr/B IN1
Pr/B IN2
Pr/B IN3
Pr/B IN4
6dB
6dB
Pr/B OUT1
Pr/B OUT2
PORT 0
PORT 1
PORT 2
PORT 3
V+
GND
VREF
BIAS
I²C BUS
ADDRESS
SDA
SCL
AUX 0
AUX 1
AUX 2
AUX 3
DGND

PIN CONFIGURATION

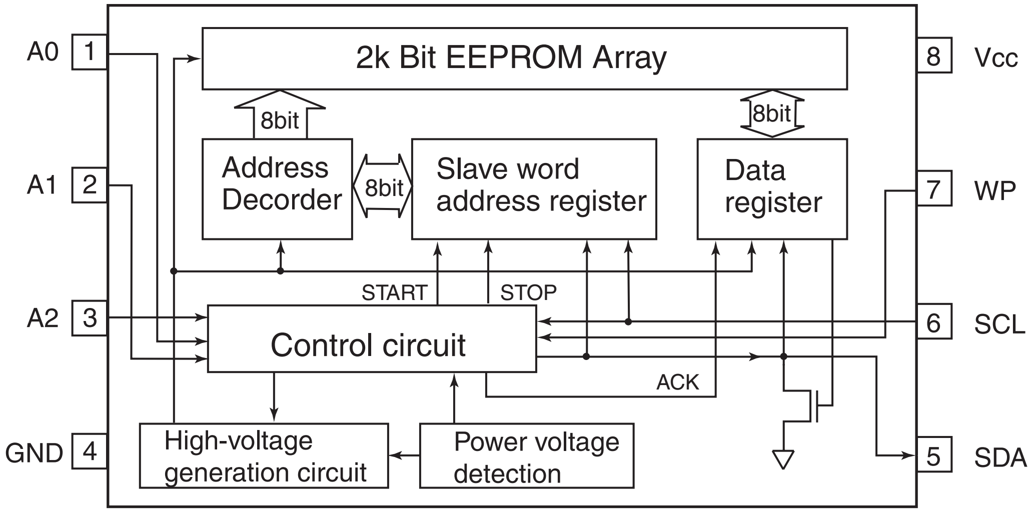


Pb IN4
V+
Y IN4
V+
Y OUT1
GND
Pb OUT1
GND
Pr OUT1
AUX3
AUX2
Y OUT2
AUX1
AUX0
38
25
GND
Pr IN4
V+
Y IN3
GND
Pb IN3
V+
Pr IN3
GND
Y IN2
39
48
24
15
Pb OUT2
PORT0
PORT1
Pr OUT2
V+
VREF
DGND
GND
SDA
SCL
1
14
V+
Pb IN2
GND
Pr IN2
GND
Y IN1
V+
Pb IN1
V+
Pr IN1
GND
PORT3
PORT2
ADR

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -68

Q8210,Q8510,Q8610: BR24L02FV-W (256x8 bit EEPROM)

BLOCK DIAGRAM AND PIN CONFIGURATION


A0
1
A1
2
A2
3
GND
4
8
Vcc
7
WP
6
SCL
5
SDA
2k Bit EEPROM Array
8bit
8bit
8bit
Address Decorder
Slave word address register
Data register
START
STOP
Control circuit
ACK
High-voltage generation circuit
Power voltage detection

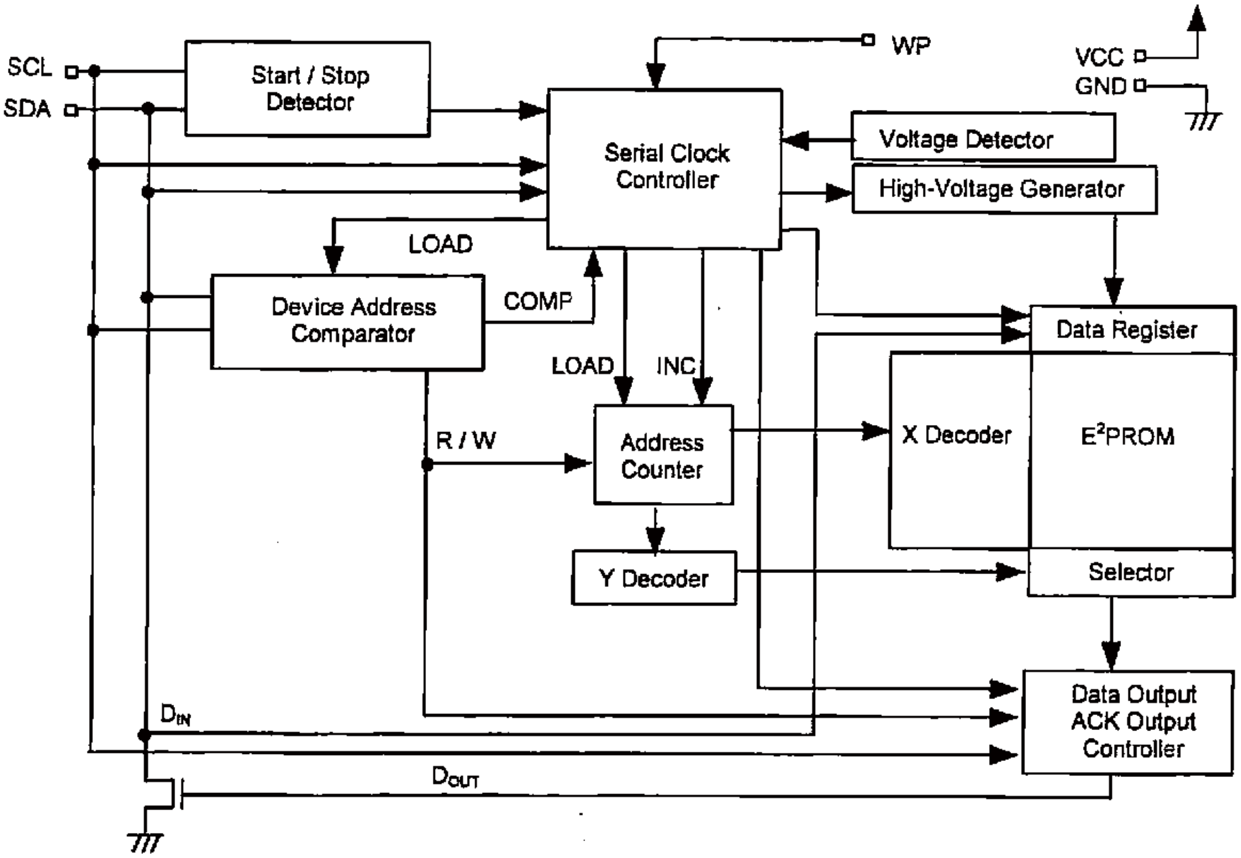
TERMINAL DESCRIPTION

Terminal	I/O	Function
Vcc	-	Apply a power source
GND	-	Ground terminal
A0,A1,A2	I	Slave address setting terminal
SCL	I	Serial clock input
SDA	I/O	Slave and word address. Serial data input and output
WP	I	Write protect terminal

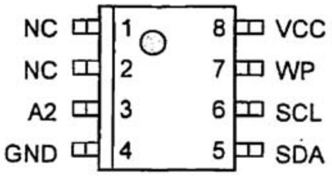
IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -69

Q8010: S-24CS16A01 (16 kbit EEPROM)

BLOCK DIAGRAM


SCL
SDA
Start / Stop Detector
WP
VCC
GND
Serial Clock Controller
Voltage Detector
High-Voltage Generator
LOAD
Device Address Comparator
COMP
LOAD
INC
Data Register
R / W
Address Counter
X Decoder
E²PROM
Y Decoder
Selector
D_{IN}
Data Output ACK Output Controller
D_{OUT}

PIN CONFIGURATION


NC 1
NC 2
A2 3
GND 4
8 VCC
7 WP
6 SCL
5 SDA

TERMINAL DESCRIPTION

Pin Number	Pin Name	Function
1	NC	No connection*1
2	NC	No connection*1
3	A2	TEST pin*2
4	GND	Ground
5	SDA	Serial data input / output
6	SCL	Serial clock input
7	WP	Write protection input Connected to V_{CC}: Protection valid Connected to GND: Protection invalid
8	VCC	Power supply

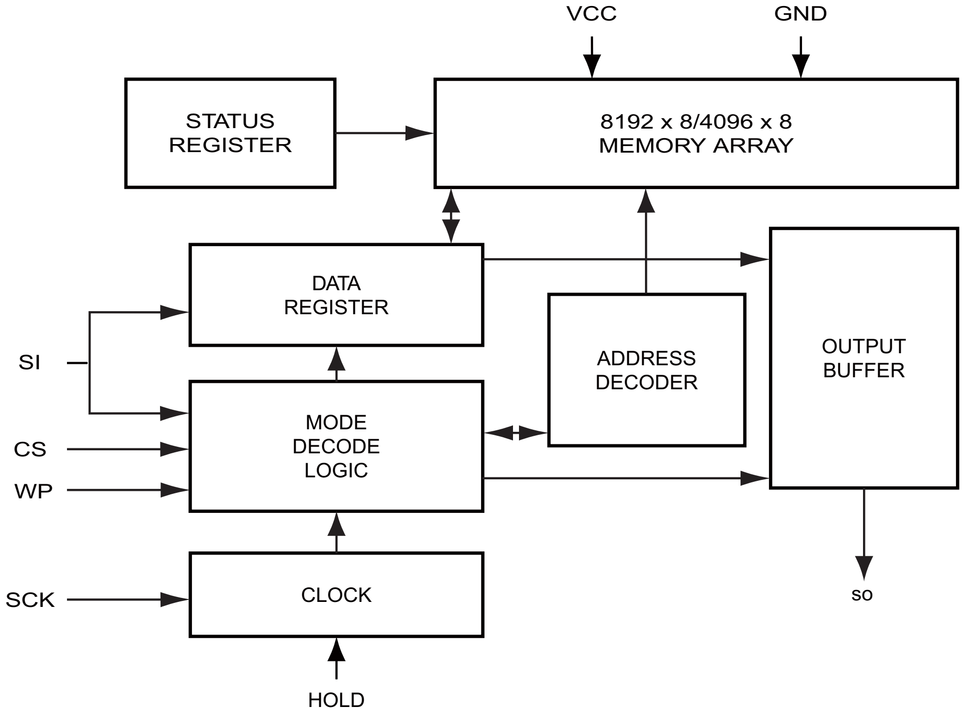
*1. Connect to GND or V_{CC}.

*2. Connect to GND.

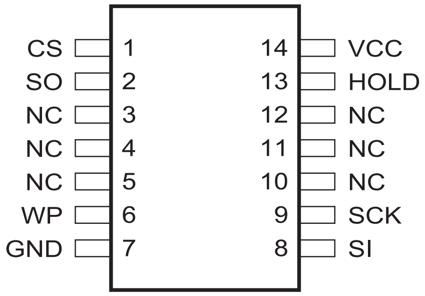
IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -70

Q7391: IS25C64A(64kbit EEPROM)

BLOCK DIAGRAM


VCC
GND
STATUS REGISTER
8192 x 8/4096 x 8 MEMORY ARRAY
DATA REGISTER
ADDRESS DECODER
OUTPUT BUFFER
SI
CS
WP
MODE DECODE LOGIC
SCK
CLOCK
so
HOLD

PIN CONFIGURATION


CS 1
SO 2
NC 3
NC 4
NC 5
WP 6
GND 7
14 VCC
13 HOLD
12 NC
11 NC
10 NC
9 SCK
8 SI

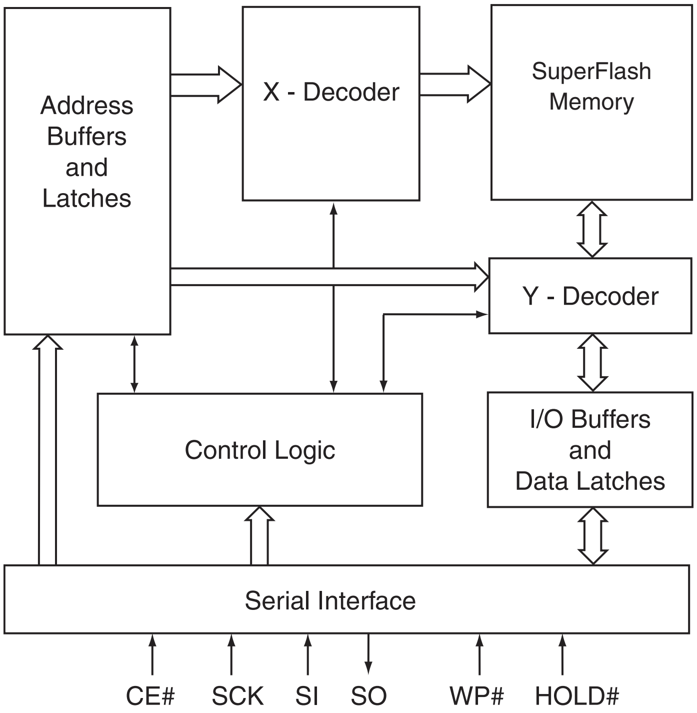
TERMINAL DESCRIPTION

CS	Chip Select
SCK	Serial Data Clock
SI	Serial Data Input
SO	Serial Data Output
GND	Ground
VCC	Power
WP	Write Protect
HOLD	Suspends Serial Input
NC	No Connect

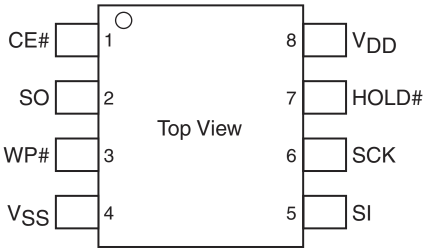
IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -71

Q8011: SST25VF080B (8 Mbit Serial Flash Memory)

BLOCK DIAGRAM


Address Buffers and Latches
X - Decoder
SuperFlash Memory
Y - Decoder
Control Logic
I/O Buffers and Data Latches
Serial Interface
CE#
SCK
SI
SO
WP#
HOLD#

PIN CONFIGURATION


CE# 1
SO 2
WP# 3
VSS 4
8 VDD
7 HOLD#
6 SCK
5 SI
Top View

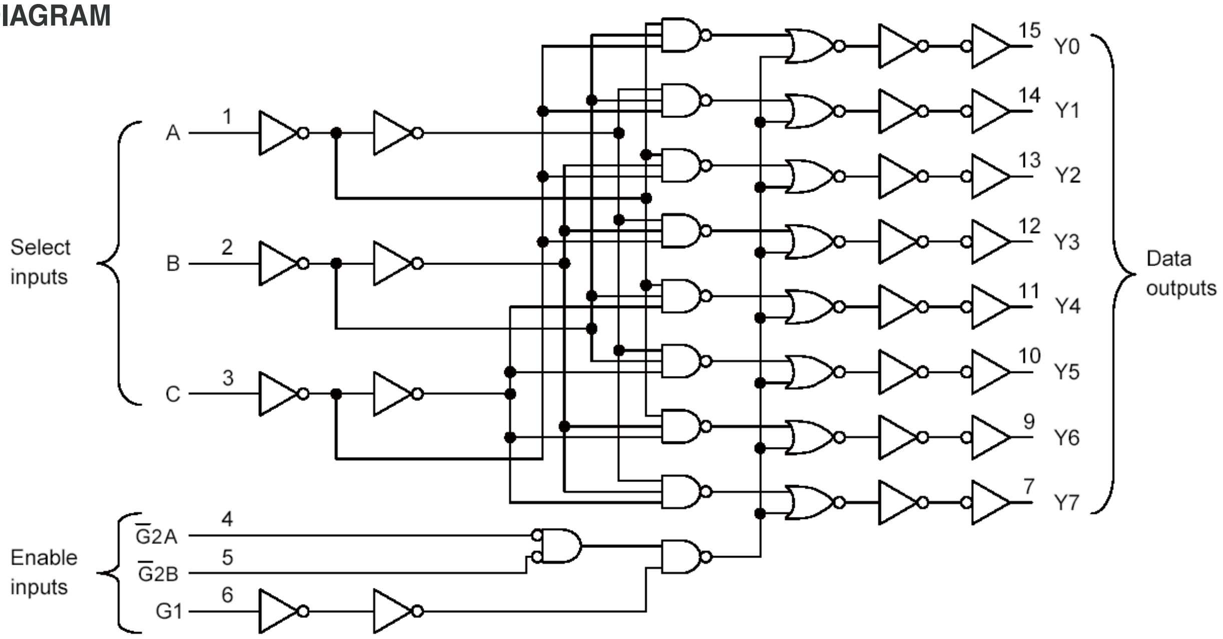
TERMINAL DESCRIPTION

Symbol	Pin Name	Functions
SCK	Serial Clock	To provide the timing of the serial interface. Commands, addresses, or input data are latched on the rising edge of the clock input, while output data is shifted out on the falling edge of the clock input.
SI	Serial Data Input	To transfer commands, addresses, or data serially into the device. Inputs are latched on the rising edge of the serial clock.
SO	Serial Data Output	To transfer data serially out of the device. Data is shifted out on the falling edge of the serial clock.
CE#	Chip Enable	The device is enabled by a high to low transition on CE#. CE# must remain low for the duration of any command sequence.
WP#	Write Protect	The Write Protect (WP#) pin is used to enable/disable BPL bit in the status register.
HOLD#	Hold	To temporarily stop serial communication with SPI flash memory without resetting the device.
V_{DD}	Power Supply	To provide power supply voltage: 2.7-3.6V for SST25VF080
V_{SS}	Ground	

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -72

Q7171: TC74VHC238FT (3-8 Line Decoder)

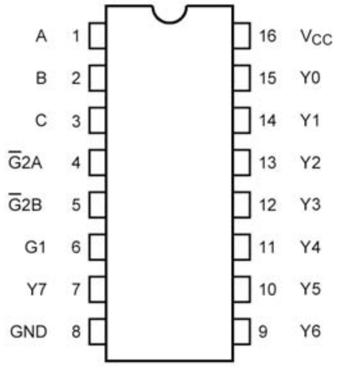
BLOCK DIAGRAM


Select inputs
A
1
B
2
C
3
Enable inputs
$\overline{\text{G}}$2A
4
$\overline{\text{G}}$2B
5
G1
6
15
Y0
14
Y1
13
Y2
12
Y3
11
Y4
10
Y5
9
Y6
7
Y7
Data outputs

Logic Diagram

Inputs						Outputs								Selected Output
Enable			Select			Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	
G1	$\overline{\text{G}}$2A	$\overline{\text{G}}$2B	C	B	A									
L	X	X	X	X	X	L	L	L	L	L	L	L	L	None
X	H	X	X	X	X	L	L	L	L	L	L	L	L	None
X	X	H	X	X	X	L	L	L	L	L	L	L	L	None
H	L	L	L	L	L	H	L	L	L	L	L	L	L	Y0
H	L	L	L	L	H	L	H	L	L	L	L	L	L	Y1
H	L	L	L	H	L	L	L	H	L	L	L	L	L	Y2
H	L	L	L	H	H	L	L	L	H	L	L	L	L	Y3
H	L	L	H	L	L	L	L	L	L	H	L	L	L	Y4
H	L	L	H	L	H	L	L	L	L	L	H	L	L	Y5
H	L	L	H	H	L	L	L	L	L	L	L	H	L	Y6
H	L	L	H	H	H	L	L	L	L	L	L	L	H	Y7

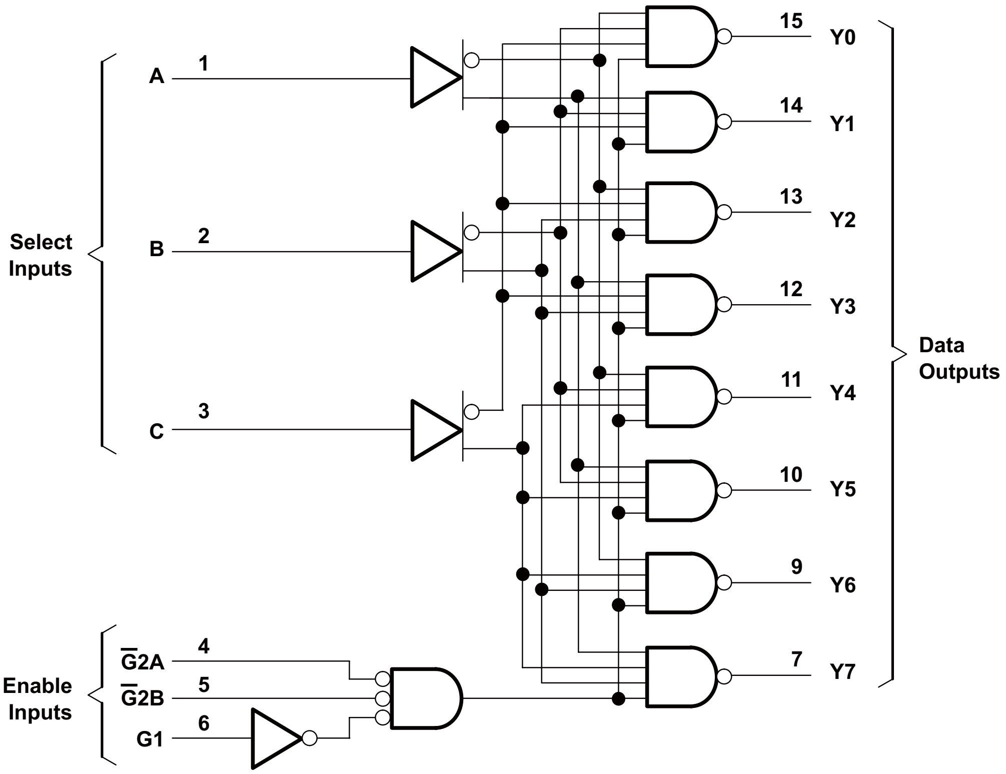
PIN CONFIGURATION


A 1
B 2
C 3
$\overline{\text{G}}$2A 4
$\overline{\text{G}}$2B 5
G1 6
Y7 7
GND 8
16 V_{CC}
15 Y0
14 Y1
13 Y2
12 Y3
11 Y4
10 Y5
9 Y6

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -73

Q7172: SN74AHC138PW (3-8 Line Decoder)

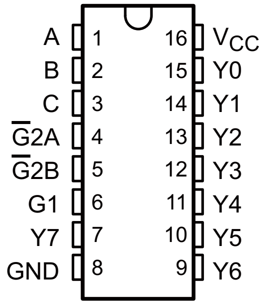
BLOCK DIAGRAM


Select Inputs
A
1
B
2
C
3
Enable Inputs
$\overline{\text{G}}$2A
4
$\overline{\text{G}}$2B
5
G1
6
15
Y0
14
Y1
13
Y2
12
Y3
11
Y4
10
Y5
9
Y6
7
Y7
Data Outputs

Logic Diagram

ENABLE INPUTS			SELECT INPUTS			OUTPUTS							
G1	$\overline{\text{G}}$2A	$\overline{\text{G}}$2B	C	B	A	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
X	H	X	X	X	X	H	H	H	H	H	H	H	H
X	X	H	X	X	X	H	H	H	H	H	H	H	H
L	X	X	X	X	X	H	H	H	H	H	H	H	H
H	L	L	L	L	L	L	H	H	H	H	H	H	H
H	L	L	L	L	H	H	L	H	H	H	H	H	H
H	L	L	L	H	L	H	H	L	H	H	H	H	H
H	L	L	L	H	H	H	H	H	L	H	H	H	H
H	L	L	H	L	L	H	H	H	H	L	H	H	H
H	L	L	H	L	H	H	H	H	H	H	L	H	H
H	L	L	H	H	L	H	H	H	H	H	H	L	H
H	L	L	H	H	H	H	H	H	H	H	H	H	L

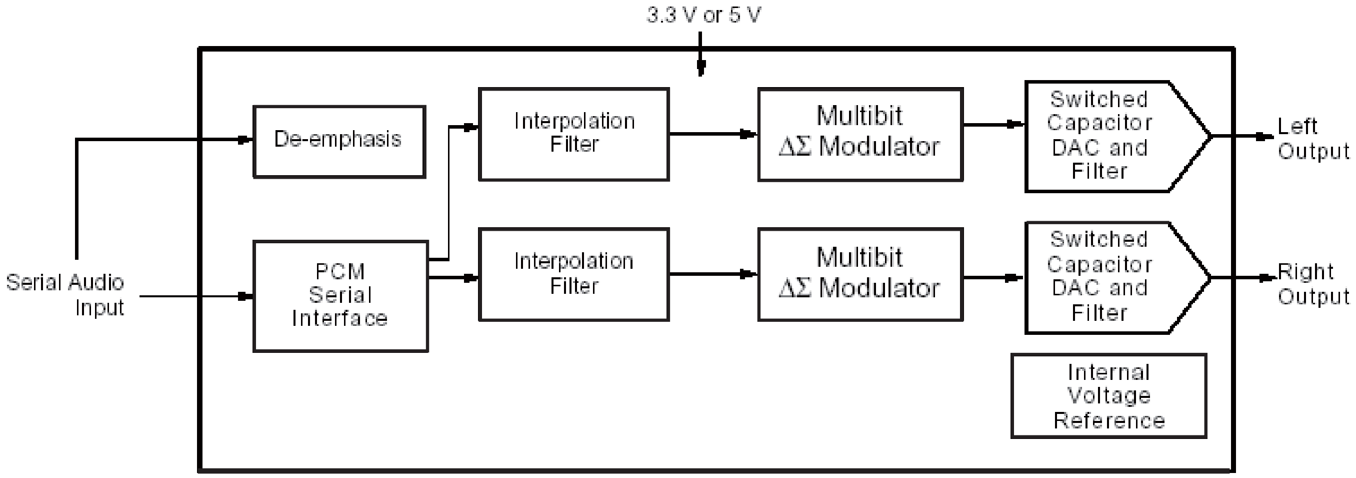
PIN CONFIGURATION


A
1
B
2
C
3
$\overline{\text{G}}$2A
4
$\overline{\text{G}}$2B
5
G1
6
Y7
7
GND
8
16
V_{CC}
15
Y0
14
Y1
13
Y2
12
Y3
11
Y4
10
Y5
9
Y6

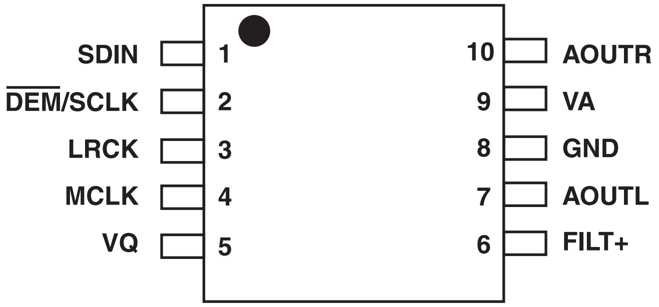
IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -74

Q101: CS4344-CZZR (24bit, 192kHz, Stereo, DAC)

BLOCK DIAGRAM


3.3 V or 5 V
De-emphasis
Interpolation Filter
Multibit ΔΣ Modulator
Switched Capacitor DAC and Filter
Left Output
Serial Audio Input
PCM Serial Interface
Interpolation Filter
Multibit ΔΣ Modulator
Switched Capacitor DAC and Filter
Right Output
Internal Voltage Reference

PIN CONFIGURATION


SDIN 1
$\overline{\mathrm{DEM}}$/SCLK 2
LRCK 3
MCLK 4
VQ 5
10 AOUTR
9 VA
8 GND
7 AOUTL
6 FILT+

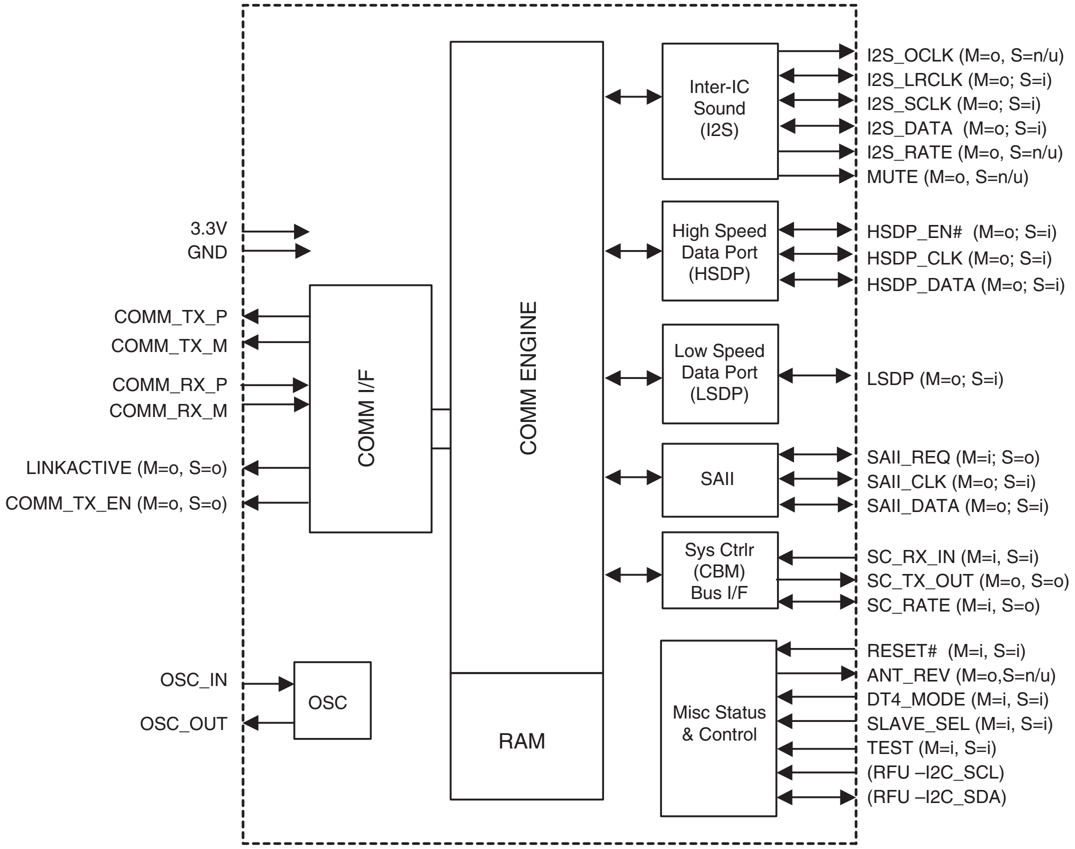
TERMINAL DESCRIPTION

Pin Name	#	Pin Description
SDIN	1	**Serial Audio Data Input** (*Input*) - Input for two's complement serial audio data.
$\overline{\mathrm{DEM}}$/SCLK	2	**De-Emphasis/External Serial Clock Input** (*Input*) - used for de-emphasis filter control or external serial clock input.
LRCK	3	**Left Right Clock** (*Input*) - Determines which channel, Left or Right, is currently active on the serial audio data line.
MCLK	4	**Master Clock** (*Input*) - Clock source for the delta-sigma modulator and digital filters.
VQ	5	**Quiescent Voltage** (*Output*) - Filter connection for internal quiescent voltage.
FILT+	6	**Positive Voltage Reference** (*Output*) **-** Positive reference voltage for the internal sampling circuits.
AOUTL	7	**Left Channel Analog Output** (*Output*) - The full scale analog output level is specified in the Analog Characteristics specification table.
GND	8	**Ground** (*Input*) - ground reference.
VA	9	**Analog Power** (*Input*) **-** Positive power for the analog and digital sections.
AOUTR	10	**Right Channel Analog Output** (*Output*) - The full scale analog output level is specified in the Analog Characteristics specification table.

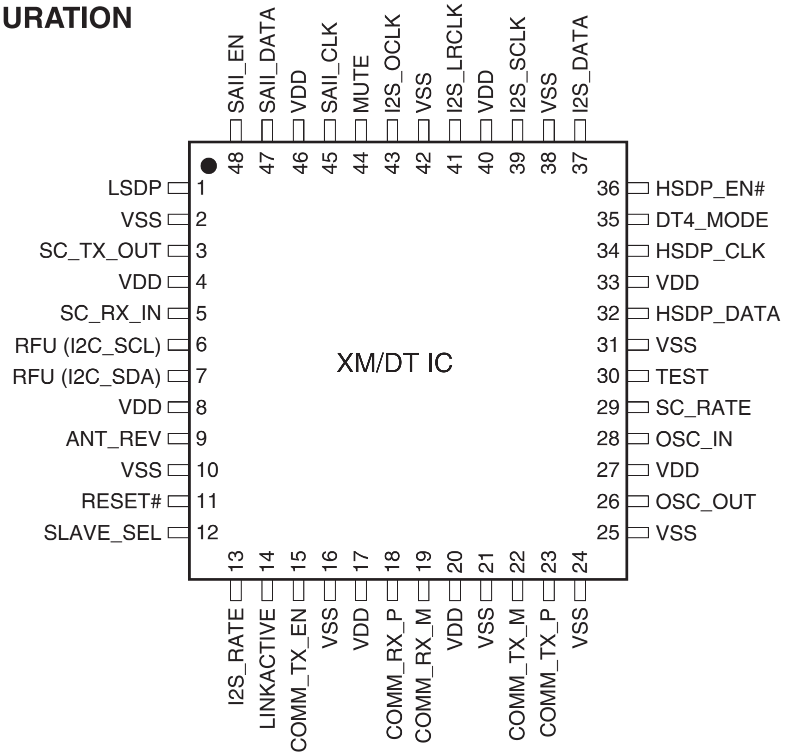
IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -75

Q103 : F2628E-01 (XM Digital Transceiver)

BLOCK DIAGRAM


3.3V
GND
COMM_TX_P
COMM_TX_M
COMM_RX_P
COMM_RX_M
LINKACTIVE (M=o, S=o)
COMM_TX_EN (M=o, S=o)
OSC_IN
OSC_OUT
COMM I/F
OSC
COMM ENGINE
RAM
Inter-IC Sound (I2S)
High Speed Data Port (HSDP)
Low Speed Data Port (LSDP)
SAII
Sys Ctrlr (CBM) Bus I/F
Misc Status & Control
I2S_OCLK (M=o, S=n/u)
I2S_LRCLK (M=o; S=i)
I2S_SCLK (M=o; S=i)
I2S_DATA (M=o; S=i)
I2S_RATE (M=o, S=n/u)
MUTE (M=o, S=n/u)
HSDP_EN# (M=o; S=i)
HSDP_CLK (M=o; S=i)
HSDP_DATA (M=o; S=i)
LSDP (M=o; S=i)
SAII_REQ (M=i; S=o)
SAII_CLK (M=o; S=i)
SAII_DATA (M=o; S=i)
SC_RX_IN (M=i, S=i)
SC_TX_OUT (M=o, S=o)
SC_RATE (M=i, S=o)
RESET# (M=i, S=i)
ANT_REV (M=o,S=n/u)
DT4_MODE (M=i, S=i)
SLAVE_SEL (M=i, S=i)
TEST (M=i, S=i)
(RFU –I2C_SCL)
(RFU –I2C_SDA)

PIN CONFIGURATION


XM/DT IC
1 LSDP
2 VSS
3 SC_TX_OUT
4 VDD
5 SC_RX_IN
6 RFU (I2C_SCL)
7 RFU (I2C_SDA)
8 VDD
9 ANT_REV
10 VSS
11 RESET#
12 SLAVE_SEL
13 I2S_RATE
14 LINKACTIVE
15 COMM_TX_EN
16 VSS
17 VDD
18 COMM_RX_P
19 COMM_RX_M
20 VDD
21 VSS
22 COMM_TX_M
23 COMM_TX_P
24 VSS
25 VSS
26 OSC_OUT
27 VDD
28 OSC_IN
29 SC_RATE
30 TEST
31 VSS
32 HSDP_DATA
33 VDD
34 HSDP_CLK
35 DT4_MODE
36 HSDP_EN#
37 I2S_DATA
38 VSS
39 I2S_SCLK
40 VDD
41 I2S_LRCLK
42 VSS
43 I2S_OCLK
44 MUTE
45 SAII_CLK
46 VDD
47 SAII_DATA
48 SAII_EN

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -76

Q103 : F2628E-01 (XM Digital Transceiver)

TERMINAL DESCRIPTION(1/2)

Pin No.	Pin Name	Direction	Function in Slave Mode	Function in Master Mode	Notes
1	LSDP	S=In M=Out	Low Speed Data Port Input	Low Speed Data Port Output	Out= 4mA, SLC In=LVTTL S/T
3	SC_TX_OUT	S=Out M=Out	System Controller Bus (CBM) Transmit Data Out	System Controller Bus (CBM) Transmit Data Out	4mA, SLC
5	SC_RX_IN	S=In M=In	System Controller Bus (CBM) Receive Data In	System Controller Bus (CBM) Receive Data In	LVTTL S/T
6	RFU (I2C-SCL)	S=In M=In	Reserved for Future Use (pull down with a 100k resistor to Ground)	Reserved for Future Use (pull down with a 100k resistor to Ground)	LVTTL S/T
7	RFU (I2C-SDA)	S=In M=In	Reserved for Future Use (pull down with a 100k resistor to Ground)	Reserved for Future Use (pull down with a 100k resistor to Ground)	LVTTL S/T
9	ANT_REV	S=n/u M=Out	Not used in Slave mode, leave unconnected	Indication of incompatible antenna (refer to section 4.3.2 for usage)	4mA, SLC
11	RESET#	S=In M=In	Asynchronous Reset In, (Active Low)	Asynchronous Reset In, (Active Low)	LVTTL S/T
12	SLAVE_SEL	S=In M=In	Master/Slave Mode Select In (High = Slave Mode)	Master/Slave Mode Select In (Low = Master Mode)	LVTTL S/T
13	I2S_RATE	S=Out M=Out	Output driven high, leave unconnected	Indicator of incoming I2S data rate (see section 4.4.2)	4mA, SLC
14	LINKACTIVE	S=Out M=Out	Link Active indicator (High = DT bus link is active and data is flowing)	Link Active indicator (High = DT bus link is active and data is flowing)	4mA, SLC
15	COMM_TX_EN	S=Out M=Out	DT Comm Bus External Transceiver Direction Control Output (0=Tx, 1=Rx)	DT Comm Bus External Transceiver Direction Control Output (0=Tx, 1=Rx)	4mA, SLC
18	COMM_RX_P	S=In M=In	DT Differential Comm Bus Internal Receiver Positive In	DT Differential Comm Bus Internal Receiver Positive In	LVDS in+
19	COMM_RX_M	S=In M=In	DT Differential Comm Bus Internal Receiver Negative In	DT Differential Comm Bus Internal Receiver Negative In	LVDS in–
22	COMM_TX_M	S=Out M=Out	DT Differential Comm Bus Internal Transmitter Negative Out	DT Differential Comm Bus Internal Transmitter Negative Out	LVDS out–
23	COMM_TX_P	S=Out M=Out	DT Differential Comm Bus Internal Transmitter Positive Out	DT Differential Comm Bus Internal Transmitter Positive Out	LVDS out+
26	OSC_OUT	S=Out M=Out	Crystal Driver Output	Crystal Driver Output	
28	OSC_IN	S=In M=In	Crystal/ Ext. Clock Input	Crystal/ Ext. Clock Input	
29	SC_RATE (Rev 4A only, pull down for rev 3B)	S=Out M=In	SC interface baud rate Output (High = DT4_MODE is high and the Master DTIC is operating at 115.2K baud)	SC interface baud rate select Input (High = 115.2K baud, Low = 9600 baud)	Out= 4mA, SLC In=LVTTL S/T
30	TEST	S=In M=In	Factory Test Mode Select (1=Test, 0= Normal Oper.)	Factory Test Mode Select (1=Test, 0= Normal Oper.)	LVTTL S/T

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -77

Q103 : F2628E-01 (XM Digital Transceiver)

TERMINAL DESCRIPTION(2/2)

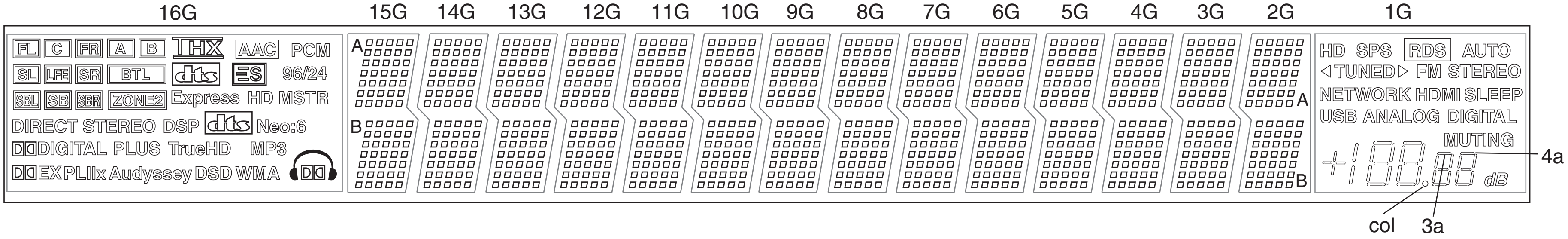
Pin No.	Pin Name	Direction	Function in Slave Mode	Function in Master Mode	Notes
32	HSDP_DATA	S=In M=Out	High Speed Data Port Data Input	High Speed Data Port Data Output	Out= 4mA, SLC In=LVTTL S/T
34	HSDP_CLK	S=In M=Out	High Speed Data Port Clock Input	High Speed Data Port Clock Output	Out= 4mA, SLC In=LVTTL S/T
35	DT4_MODE	S=In M=In	Enables/Disables driver on SC_RATE and ANT_REV (High = enable driver) This pin was VSS on rev 3 XM/DT IC	Enables/Disables drivers on MUTE and ANT_REV (High = enable drivers) This pin was VSS on rev 3 XM/DT IC	In=LVTTL S/T
36	HSDP_EN#	S=In M=Out	High Speed Data Port Enable Input (Active low)	High Speed Data Port Enable Output (Active low)	Out= 4mA, SLC In=LVTTL S/T
37	I2S_DATA	S=In M=Out	I2S Digital Audio Port Data In	I2S Digital Audio Port Data Out	Out= 4mA, SLC In=LVTTL S/T
39	I2S_SCLK	S=In M=Out	I2S Digital Audio Port Bit Clock In	I2S Digital Audio Port Bit Clock Out	Out= 4mA, SLC In=LVTTL S/T
41	I2S_LRCLK	S=In M=Out	I2S Digital Audio Port Left/Right Clock In	I2S Digital Audio Port Left/Right Clock Out	Out= 4mA, SLC In=LVTTL S/T
43	I2S_OCLK	S=In M=Out	I2S Digital Audio Port Oversample Clock (not used, leave unconnected)	I2S Digital Audio Port Oversample Clock Out	Out= 4mA, SLC
44	MUTE	S=n/u M=Out	Not used in Slave mode, leave unconnected	Provides a mechanism for muting the audio during an I2S rate change (High=mute)	Out= 4mA, SLC
45	SAII_CLK	S=Out M=In	SAII Port Clock Output	SAII Port Clock Input	Out= 4mA, SLC In=LVTTL S/T
47	SAII_DATA	S=Out M=In	SAII Port Data Output	SAII Port Data Input	Out= 4mA, SLC In=LVTTL S/T
48	SAII_REQ	S=In M=Out	SAII Port Request Input	SAII Port Request Output	Out= 4mA, SLC In=LVTTL S/T

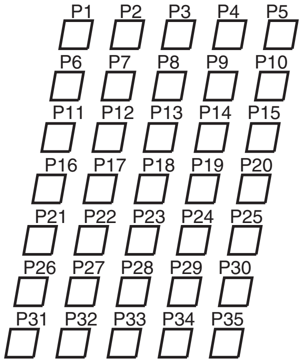
Pin#	Pin Name	Type	Function in Slave Mode	Function in Master Mode	Notes
4, 8, 17, 20, 27, 33, 40, 46	VDD	PWR	+3.3V Supply Voltage	+3.3V Supply Voltage	
2, 10, 16, 21, 24, 25, 31, 38, 42	VSS	GND	Digital Ground	Digital Ground	

FL TUBE VIEWS -1

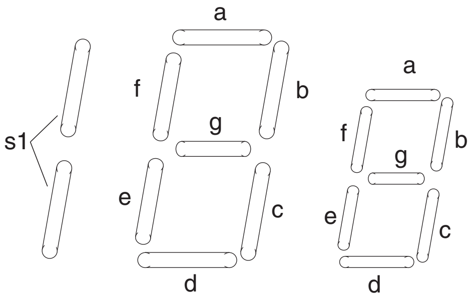
Q7500: HNA-16SL04T

GRID ASSIGNMENT


16G
15G
14G
13G
12G
11G
10G
9G
8G
7G
6G
5G
4G
3G
2G
1G
FL
C
FR
A
B
THX
AAC
PCM
SL
LFE
SR
BTL
dts
ES
96/24
SBL
SB
SBR
ZONE2
Express
HD
MSTR
DIRECT
STEREO
DSP
dts
Neo:6
DIGITAL
PLUS
TrueHD
MP3
EX
PLIIx
Audyssey
DSD
WMA
A
B
A
B
HD
SPS
RDS
AUTO
◁TUNED▷
FM
STEREO
NETWORK
HDMI
SLEEP
USB
ANALOG
DIGITAL
MUTING
dB
4a
col
3a


P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
P31
P32
P33
P34
P35

15G~2G
A: Upper line
B: Lower line


a
f
b
g
s1
e
c
d
a
f
b
g
e
c
d

1G

FL TUBE VIEWS -2

Q7500: HNA-16SL04T

ANODE CONNECTION

	16G	15G-2G	1G
P1	——	1-1A	——
P2	——	2-1A	——
P3	——	3-1A	——
P4	——	4-1A	——
P5	——	5-1A	——
P6	——	1-2A	——
P7	——	2-2A	——
P8	——	3-2A	——
P9	——	4-2A	——
P10	——	5-2A	——
P11	——	1-3A	——
P12	——	2-3A	——
P13	——	3-3A	——
P14	——	4-3A	HD
P15	——	5-3A	SPS
P16	PCM	1-4A	RDS
P17	AAC	2-4A	AUTO
P18	THX	3-4A	FM STEREO
P19	B	4-4A	◁ ▷
P20	A	5-4A	TUNED
P21	(FR)	1-5A	SLEEP
P22	(F)R	2-5A	HDMI
P23	F(R)	3-5A	NETWORK
P24	(C)	4-5A	——
P25	C	5-5A	——
P26	(FL)	1-6A	——
P27	(F)L	2-6A	——

	16G	15G-2G	1G
P28	F(L)	3-6A	——
P29	SL	4-6A	——
P30	(SL)	5-6A	——
P31	LFE	1-7A	——
P32	▭ (LFE)	2-7A	——
P33	——	3-7A	DIGITAL
P34	——	4-7A	ANALOG
P35	(SR)	5-7A	USB
P36	SR	1-1B	——
P37	BTL	2-1B	MUTING
P38	dts	3-1B	2a
P39	ES	4-1B	2b
P40	96/24	5-1B	2g
P41	MSTR	1-2B	2f
P42	HD	2-2B	2c
P43	Express	3-2B	2e
P44	ZONE2	4-2B	2d
P45	▭	5-2B	1a
P46	SBR	1-3B	1b
P47	▭	2-3B	1g
P48	SB	3-3B	1f
P49	▭	4-3B	1c
P50	SBL	5-3B	1e
P51	Neo:6	1-4B	1d
P52	dts	2-4B	/ /
P53	DSP	3-4B	– –
P54	STEREO	4-4B	s1

	16G	15G-2G	1G
P55	DIRECT	5-4B	col
P56	DD	1-5B	3a
P57	DIGITAL	2-5B	3f
P58	PLUS	3-5B	3b
P59	TrueHD	4-5B	3e
P60	MP3	5-5B	3g
P61	🎧	1-6B	3d
P62	DD	2-6B	3c
P63	WMA	3-6B	4a
P64	DSD	4-6B	4f
P65	Audyssey	5-6B	4b
P66	x	1-7B	4e
P67	II	2-7B	4g
P68	PL	3-7B	4d
P69	EX	4-7B	4c
P70	DD	5-7B	dB

MICROPROCESSOR TERMINAL DESCRIPTIONS -1

Q7001: M3087BFKBGP

Pin No.	Pin Name	I/O	Act.	Description
1	SRTXD	O	H	SIRIUS UART data output
2	SRRST	O	H	SIRIUS IC reset
3	FANCTRL	O	D/A	Fan control
4	CECIN	I	H	CEC input
5	XMTXD	O	H	XM UART data output
6	XMRXD	I	H	XM UART data input
7	~XMRST	O	L	XM IC reset
8	XMANT	I	L	XM IC 3B/4A input
9	~RDSCLK	I	CLK	RDS serial clock input
10	RDSSDI	I	H	RDS serial data input
11	~STEREO	I	L	FM STEREO detect
12	~SD	I	L	FM tuned detect
13	~TUNDACRST	O	L	XM/(HD Radio) DAC reset control
14	~HDRST	O	L	(HD Radio reset control)
15	BYTE	I	---	Connect to Vss
16	CNVss	I	---	Connect to Vss
17	~NETBOOT	O	L	NET BOOT mode output
18	~NETSTATUS	I	L	NET Status input
19	~RESET	I	L	Reset input
20	Xout	O	CLK	Oscillator output
21	Vss	I	---	GND
22	Xin	I	CLK	Oscillator input
23	Vcc	I	---	Power supply
24	~NMI	I	L	Connect to Vcc
25	~POFF	I	L	POFF input
26	~POFF2	I	L	POFF input
27	~KEYINT	I	L	Key interrupt input
28	CECTRG	I	H	CEC trigger input
29	CECOUT	O	H	CEC output
30	Z2VOLCLK	O	H	Clock output to Zone2/3 Volume IC
31	Z2VOLSDO	O	H	Data output to Zone2/3 Volume IC
32	XMLNK	I	H	3B/4A input from XM IC
33	VDLOCK/VSPINT	I/O	H	(HQV lock status output)/Request input from Hudson
34	~VSPRST	O	L	(HQV)/Hudson reset output
35	VSPBOOT/VSPREQ	O	H	(HQV BOOT mode select output)/Request output from Hudson
36	VSPRxD/VSPSCL	I/O	H	(HQV UART data input)/Hudson I2C clock output
37	VSPRxD/VSPSDA	I/O	H	(HQV UART data output)/Hudson I2C data input/output
38	RS232TxD/FTxD	O	H	RS232 data output/Flash rewrite pin
39	Vcc	I	H	Power supply
40	RS232RxD/FRxD	I	H	RS232 data input
41	Vss	I	H	GND
42	FCLK	O	H	Flash rewrite pin
43	FBUSY	O	H	Flash rewrite pin
44	NETTxD	O	H	(NET data output)
45	NETRxD	I	H	(NET data input)
46	~NETRST	O	L	(NET reset output)
47	~NETRESUME	O	L	(NET Resume data output)
48	~ROMCS	O	L	E2PROM chip select
49	ROMSDI	I	H	E2PROM data input
50	ROMSDO	O	H	E2PROM data output

MICROPROCESSOR TERMINAL DESCRIPTIONS -2

Q7001: M3087BFKBGP

Pin No.	Pin Name	I/O	Act.	Description
51	ROMCLK	O	CLK	E2PROM clock output
52	NETRSV	O	H	No use
53	SPRLFB	O	H	Front-B Speaker relay control
54	FEPM	I	H	Connect to Vss
55	SPRLZ2	O	H	Zone2 Speaker relay control
56	Z3MUTE	O	H	Zone3 mute control
57	Vss	I	H	GND
58	Z2MUTE	O	H	Zone2 mute control
59	Vcc	I	H	Power supply
60	SBZ2MUTE	O	H	Surround Back/Zone2 mute control
61	AMUTE	O	H	Main audio mute control
62	SPRLSB	O	H	Surround Back SP relay control
63	SPRLCS	O	H	Center/Surround SP relay control
64	SPRLF	O	H	Front SP relay control
65	FCS	I	H	Connect to Vcc
66	DAMPRSV	O	H	No use
67	DAMPINT	I	H	No use
68	~DAMPRST	O	L	No use
69	SELSTB	O	H	Audio input selector Strobe output
70	SELDAT	O	H	Audio input selector data output
71	SELCLK	O	CLK	Audio input selector clock output
72	~VOLRST	O	L	Volume IC reset control
73	~VOLMUTE	O	L	Volume IC mute control
74	Vcc	I	---	Power supply
75	~VOLCS	O	L	Volume IC chip select
76	Vss	I	---	GND
77	VOLSDO	O	H	Volume IC data output
78	VOLCLK	O	CLK	Volume IC clock output
79	~DSP3INT	I	L	3rd DSP BUSY detect input
80	~DSP3RST	O	L	3rd DSP reset
81	~DSP2INT	I	L	2nd DSP BUSY detect input
82	~DSP2RST	O	L	2nd DSP reset
83	~DSP1INT	I	L	1st DSP BUSY detect input
84	~DSP1RST	O	L	1st DSP reset
85	~DACRST	O	L	DAC reset
86	DIRINT	I	H	DIR Err detect input
87	~DIRRST	O	L	DIR reset
88	DIGSDI	I	H	DIR/DSP/DAC data input
89	DIGCLK	O	CLK	DIR/DSP/DAC/FLD clock output
90	DIGSDO	O	H	DIR/DSP/DAC/FLD data output
91	Vcc	I	---	Power supply
92	PROTECT	I	H	PROTECT detect input
93	Vss	I	---	GND
94	APOWER2	O	H	(Main Power trans control output 2)
95	APOWER1	O	H	(Main Power trans control output 1)
96	MEQMUTE	I	H	3rd DSP Audyssey mute detect input
97	VPOWER	O	H	Video power control output
98	MPOWER	O	H	(Middle size Power trans control)/Main Power trans control output
99	VOLH	I	A/D	Power Amp voltage switch control detect
100	THERMAL2	I	A/D	Thermal sensor input

MICROPROCESSOR TERMINAL DESCRIPTIONS -3

Q7001: M3087BFKBGP

Pin No.	Pin Name	I/O	Act.	Description
101	THERMAL1	I	A/D	Thermal sensor input
102	~REMIN	I	L	Remote control signal input
103	DSP1NIC	I	H	1st DSP status change detect
104	SYSIN	I	H	RI input
105	~SYSOUT	O	L	RI output
106	MICMUTE	O	H	Setup Mic mute control
107	~MICDET	I	L	Setup Mic detect input
108	HPRL	O	H	Headphone relay control
109	HPDET	I	H	Headphone detect input
110	INIT3	I	A/D	Initial setup input 3
111	INIT2	I	A/D	Initial setup input 2
112	INIT1	I	A/D	Initial setup input 1
113	BAND	I	A/D	Initial setup input
114	SIOCSA	O	H	DIR/DSP/DAC/FLD/etc chip select output
115	SIOCSB	O	H	DIR/DSP/DAC/FLD/etc chip select output
116	SIOCSC	O	H	DIR/DSP/DAC/FLD/etc chip select output
117	SIOCSOE1	O	H	DIR/DSP/DAC/FLD chip select output
118	SIOCSOE2	O	H	Selector etc chip select output
119	VOLB	I	H	Master volume data input
120	VOLA	I	H	Master volume data input
121	LEDSTBY2	O	H	STANDBY LED control output
122	LEDSTBY	O	H	STANDBY LED control output
123	~FLDRST	O	L	FL Driver IC reset control
124	RXMUTE	I	H	HDMI Receiver mute input
125	TXMUTE	O	H	HDMI Transmitter mute output
126	~HDMIRST	O	L	HDMI reset control
127	HDMISTB	I	H	HDMI Strobe input
128	HDMISDI	I	H	HDMI data input
129	HDMICLK	O	CLK	HDMI clock output
130	Vss	I	---	GND
131	HDMISDO	O	H	HDMI data output
132	Vcc	I	---	Power supply
133	KEY3	I	A/D	Selector Key voltage input
134	KEY2	I	A/D	Selector Key voltage input
135	KEY1	I	A/D	Selector Key voltage input
136	KEY0	I	A/D	Selector Key voltage input
137	~DSP1DEC	I	L	1st DSP decode status input
138	TUMUTE	O	H	Tuner mute output
139	TUNSDA/VSELSDA	I/O	H	Tuner PLL/Video Sel I2C data input/output
140	AVss	I	---	GND
141	TUNSCL/VSELSCL	I/O	H	Tuner PLL/Video Sel I2C clock output
142	Vref	I	---	Connect to Vcc
143	AVcc	I	---	Power supply
144	SRRxD	I	H	SIRIUS data input

SERVICE PROCEDURES-1

1. Replacing the fuses

This symbol located near the fuse indicates that the fuse used is show operating type, For continued protection against fire hazard, replace with same type fuse, For fuse rating, refer to the marking adjacent to the symbol.

Ce symbole indique que le fusible utilise est e lent. Pour une protection permanente, n'utiliser que des fusibles de meme type. Ce demier est indique la qu le present symbol est apposre.

<Notes>

<DC> : TX-SR805 USA and Canadian model
<DT> : TX-SR805 Taiwanese model
<MP> : TX-SR805 European model
<MA> : TX-SR805 Australian model
<MT> : TX-SR805 Southeast Asian model
<MK> : TX-SR805 Korean model
<MQ> : TX-SR805 Hong Kong model
<MR> : TX-SA805 Chinese model

REF NO.	PART NAME	DESCRIPTION	PART NO.	REMARKS
F2501	FUSE	4A-UL/T-233	252325GR	!
F2502	FUSE	4A-UL/T-233	252325GR	!
F6601	FUSE	20A-UL-250V	252304GR	!
F6602	FUSE	20A-UL-250V	252304GR	!
F6603	FUSE	20A-UL-250V	252304GR	!
F6604	FUSE	20A-UL-250V	252304GR	!
F9000	FUSE	5A-UL/T-233	252326GR	!, <DC>
F9000	FUSE	2.5A-SE-EAK	252075GR	!, <MP>
F9100	FUSE	12A-UL-ST6	252340GR	!, <DC, DT>
F9100	FUSE	6.3A-SE-EAK	252079GR	!, <MP, MA, MK, MQ, MT, MR>
F9101	FUSE	4A-UL/T-233	252325GR	!
F9102	FUSE	4A-UL/T-233	252325GR	!
F9301	FUSE	4A-UL/T-233	252325GR	!

2. To initialize the unit

1. Press and hold down VCR/DVR button, then press STANDBY/ON button when the unit is Power on.
2. After " *Clear* " is displayed, the preset memory and each mode stored in the memory are initialized and will return to the factory settings, and turn to Standby mode.

3. Safety check out

(U.S.A. model only)
After correcting the original service problem, perform the following safety check before releasing the unit to the customer.

Leakage current Check

Measure the leakage current to a known earth ground (water pipe or conduct etc.) by connecting a leakage current tester between the earth ground and exposed metal parts of the unit (input/output ground terminals, screw heads or metal overlays etc.).
Plug the power supply cord directly into a 120Vac 60Hz wall socket and turn STANDBY/ON button on.
Any current measured must not exceed 0.5mA.

4. Memory Backup

This model uses a EE-PROM IC in order to retain radio presets and other settings. So, memory contents will be kept eternally with no care.

SERVICE PROCEDURES-2

5. Replacing Power Amplifier Parts

When a power amplifier of certain channel is broken and goes into Protect mode, the following parts in the channel must be replaced at the sametime, because these parts get damage in most cases.

Front L ch	Front R ch	Center ch	Surround L ch	Surround R ch	Surround Back L ch	Surround Back R ch
Q6010,Q6020	Q6011,Q6021	Q6012,Q6022	Q6013,Q6023	Q6014,Q6024	Q6015,Q6025	Q6016,Q6026
Q6030,Q6040	Q6031,Q6041	Q6032,Q6042	Q6033,Q6043	Q6034,Q6044	Q6035,Q6045	Q6036,Q6046
Q6050,Q6060	Q6051,Q6061	Q6052,Q6062	Q6053,Q6063	Q6054,Q6064	Q6055,Q6065	Q6056,Q6066
Q6080,Q6090	Q6081,Q6091	Q6082,Q6092	Q6083,Q6093	Q6084,Q6094	Q6085,Q6095	Q6086,Q6096
Q6100,Q6110	Q6101,Q6111	Q6102,Q6112	Q6103,Q6113	Q6104,Q6114	Q6105,Q6115	Q6106,Q6116
C6010,C6020	C6011,C6021	C6012,C6022	C6013,C6023	C6014,C6024	C6015,C6025	C6016,C6026
R6060,R6070	R6061,R6071	R6062,R6072	R6063,R6073	R6064,R6074	R6065,R6075	R6066,R6076
R6250,R6260	R6251,R6261	R6252,R6262	R6253,R6263	R6254,R6264	R6255,R6265	R6256,R6266
R6270,R6280	R6271,R6281	R6272,R6282	R6273,R6283	R6274,R6284	R6275,R6285	R6276,R6286
R6290,R6300	R6291,R6301	R6292,R6302	R6293,R6303	R6294,R6304	R6295,R6305	R6296,R6306
R6310,R6330	R6311,R6331	R6312,R6332	R6313,R6333	R6314,R6334	R6315,R6335	R6316,R6336
R6340,R6350	R6341,R6351	R6342,R6352	R6343,R6353	R6344,R6354	R6345,R6355	R6346,R6356
R6360,R6400	R6361,R6401	R6362,R6402	R6363,R6403	R6364,R6404	R6365,R6405	R6366,R6406
R6410	R6411	R6412	R6413	R6414	R6415	R6416

NACLA-9063, NACLA-9066 and NACLA-9068 are electrically and mechanically full compatible with each other, but idling readjustment is necessary.

NACLA-9064, NACLA-9065, NACLA-9067 and NACLA-9069 are also electrically and mechanically full compatible with each other, but idling readjustment is necessary.

These units include the following componets in each channel driver stage, which are extracted from components listed above.

NACLA-9063 (Front L ch)	NACLA-9066 (Surround L ch)	NACLA-9068 (Surround Back L ch)
Q6010,Q6020	Q6013,Q6023	Q6015,Q6025
Q6030,Q6040	Q6033,Q6043	Q6035,Q6045
C6010,C6020	C6013,C6023	C6015,C6025
R6060,R6070	R6063,R6073	R6065,R6075
R6250,R6260	R6253,R6263	R6255,R6265
R6270,R6280	R6273,R6283	R6275,R6285
R6290,R6300	R6293,R6303	R6295,R6305
R6310	R6313	R6315

NACLA-9064 (Front R ch)	NACLA-9065 (Center ch)	NACLA9067 (Surround R ch)	NACLA-9069 (Surround Back R ch)
Q6011,Q6021	Q6012,Q6022	Q6014,Q6024	Q6016,Q6026
Q6031,Q6041	Q6032,Q6042	Q6034,Q6044	Q6036,Q6046
C6011,C6021	C6012,C6022	C6014,C6024	C6016,C6026
R6061,R6071	R6062,R6072	R6064,R6074	R6066,R6076
R6251,R6261	R6252,R6262	R6254,R6264	R6256,R6266
R6271,R6281	R6272,R6282	R6274,R6284	R6276,R6286
R6291,R6301	R6292,R6302	R6294,R6304	R6296,R6306
R6311	R6312	R6314	R6316

FIRMWARE UPDATE -1

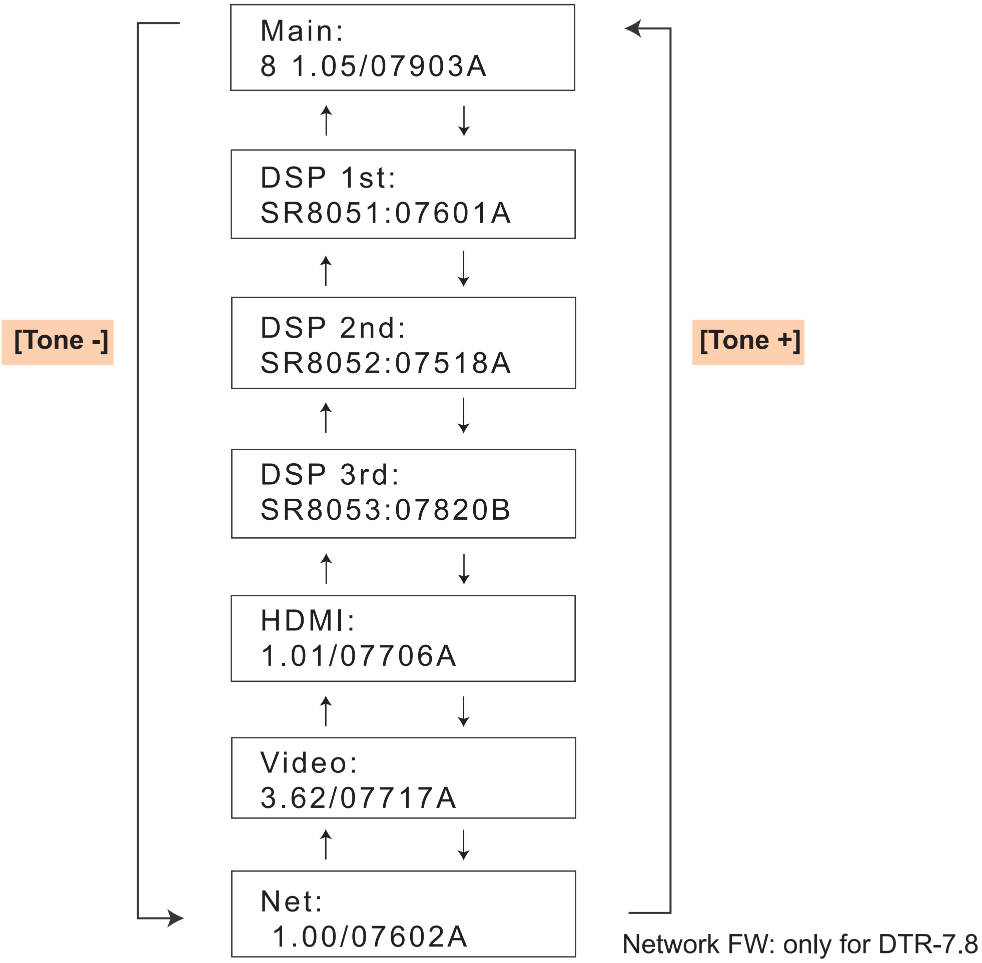
How to Check the Versions of Main, DSP(1st to 3rd), HDMI and Video Firmware

1. Press and hold down **[DISPLAY]** button, then press **[STANDBY/ON]** button when the unit is power on.
   The main microprocessor version will be displayed on Front Display for about 3 seconds.

   <e.g.>

   Main:
   8 1.05/07903A

2. Press **[Tone +]** button while the version is displayed. Then, “DSP 1st SR8051/07601A” will be displayed. Press **[Tone +]** button again while “DSPS8051:07601A” is displayed. Then, “DSP 2nd: SR8052/07601A” will be displayed. In this way, as **[Tone +]** button is pressed while a version is displayed, the next information will be displayed. If **[Tone -]** button is pressed, the order will be reversed.


Main:
8 1.05/07903A
DSP 1st:
SR8051:07601A
DSP 2nd:
SR8052:07518A
DSP 3rd:
SR8053:07820B
HDMI:
1.01/07706A
Video:
3.62/07717A
Net:
1.00/07602A
[Tone -]
[Tone +]

Network FW: only for DTR-7.8

Note: These versions are the latest as of Sep. 19, 2007.

FIRMWARE UPDATE -2

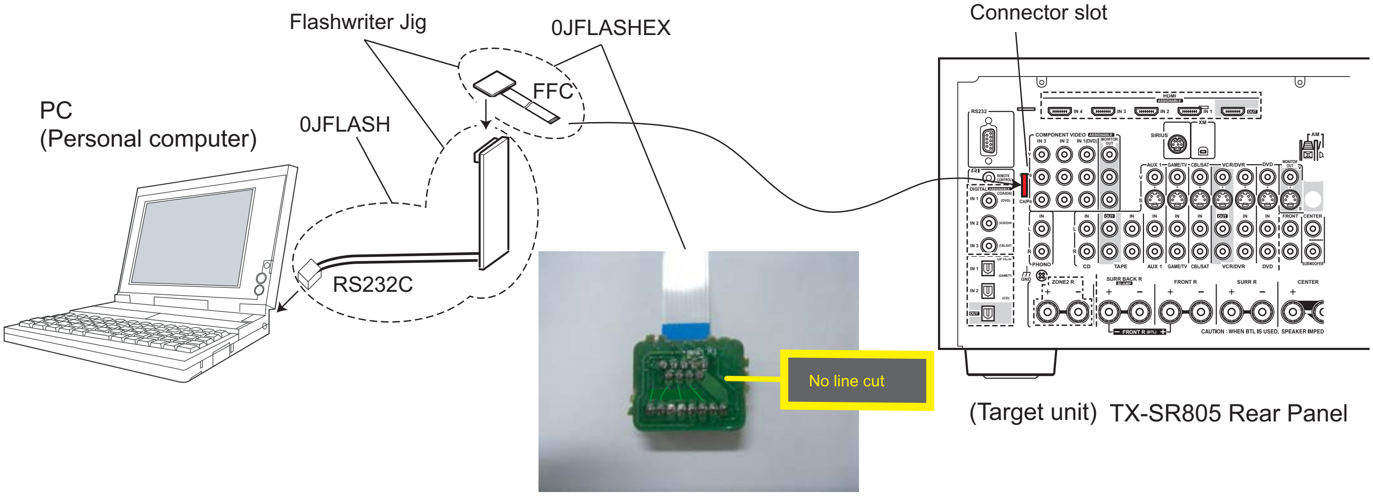
Preparation for Update (Main Microprocessor)

A: Hardware and Software

1. Personal computer(PC) with Windows XP or 2000
2. Flashwriter jig: **0JFLASH** and **0JFLASHEX** for Main
3. Writing soft: "flasta_exe.zip" and Manual: "Flash Writer M16 Manual.pdf"
   Download and unzip “flasta_exe.zip” to extract "FlashSta.exe" etc. in advance.
4. Program & ID: Download the latest ".mot" and ".id" files for TX-SR805/TX-SA805/DTR-7.8 and store in the same folder as “FlashSta.exe.”

B: Connection and Setup

1. While the target unit is off, connect 0JFLASH and 0JFLASHEX to RS232 port of the PC.
2. Connect the FFC of the jig to the connector slot on the rear panel of TX-SR805/TX-SA805/DTR-7.8.
3. Power on the unit.



Main Microprocessor Update Procedure

1. Start "FlashSta.exe" and update the unit referring to "Flash Writer M16 Manual.pdf."
   MCU Type is M16C/80 M32 It takes about 5 minutes.
2. After Program and Read Check are finished, click "Exit" button to end "FlastSta.exe".
3. Turn off the main power switch or pull the power cord off the wall socket.
   Pay attention that pushing STANDBY/ON button to power off is not perfect.
4. Remove the jig from the unit and power on the unit again. Confirm the new version number.

FIRMWARE UPDATE -3

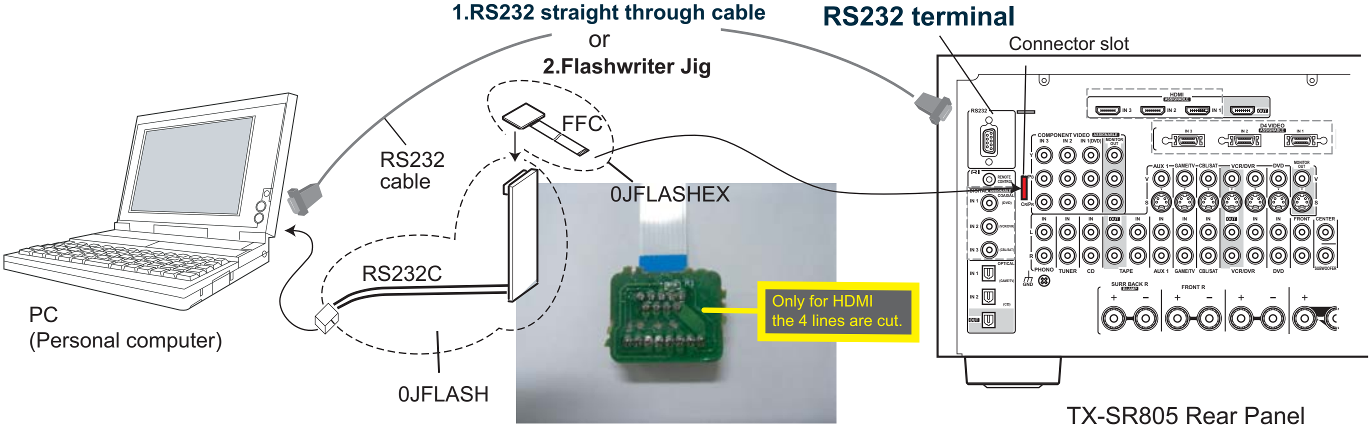
Preparation for Update (HDMI)

A: Hardware and Software

1. Personal computer(PC) with Windows XP or 2000
2. **Cable: RS232 straight cable** or Flashwriter jig: **0JFLASH** and **0JFLASHEX** for HDMI
3. Writing soft: "HDMIUpdater_SR805_07706A.zip" for HDMI microprocessor (File name depends on the version.)
   Unzip "HDMIUpdater_SR805_07706A.zip" in advance.

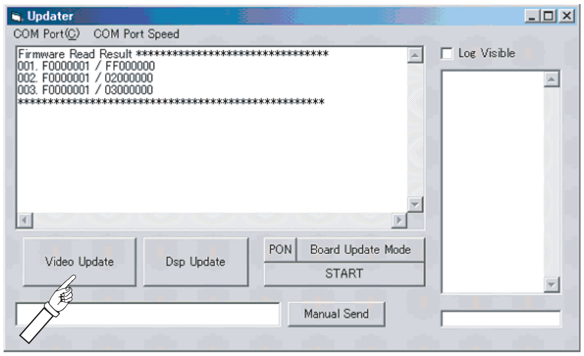
B: Connection and Setup

1. While the target unit is off, connect the unit and PC with **RS232 straight through cable.**
   If RS232 cable is not available, connect 0JFLASH and 0JFLASHEX to RS232 port of the PC, and then connect the FFC of the jig to the connector slot on the rear panel of TX-SR805/TX-SA805/DTR-7.8.
2. Power on the PC.


1.RS232 straight through cable
or
2.Flashwriter Jig
RS232 terminal
Connector slot
FFC
RS232
cable
0JFLASHEX
RS232C
0JFLASH
PC
(Personal computer)
Only for HDMI
the 4 lines are cut.
TX-SR805 Rear Panel

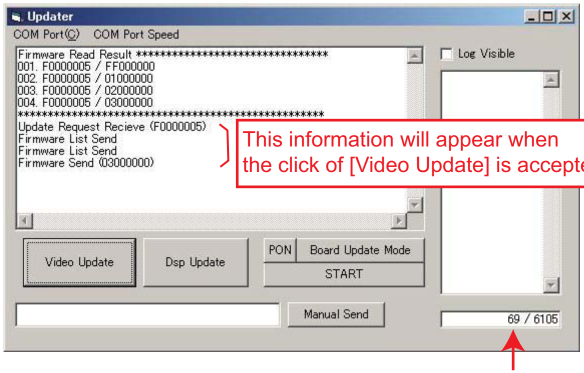
HDMI Update Procedure

1. Double click "Update.exe" in the unzipped folder "HDMIUpdater_SR805_07706A" (Folder name depends on the version.)
   The following window will appear.


Updater
COM Port(C)
COM Port Speed
☐ Log Visible
Video Update
Dsp Update
PON
Board Update Mode
START
Manual Send

```
Firmware Read Result ********************************
001. F0000001 / FF000000
002. F0000001 / 02000000
003. F0000001 / 03000000
**************************************************
```

2. Click "Video Update" button. The update takes about 5 minutes.
   The message on Front Display will change as follows.


Updater
COM Port(C)
COM Port Speed
☐ Log Visible
Video Update
Dsp Update
PON
Board Update Mode
START
Manual Send

```
Firmware Read Result ********************************
001. F0000005 / FF000000
002. F0000005 / 01000000
003. F0000005 / 02000000
004. F0000005 / 03000000
**************************************************
Update Request Recieve (F0000005)
Firmware List Send
Firmware List Send
Firmware Send (03000000)
```

69 / 6105

This information will appear when the click of [Video Update] is accepted.

The number is going up as writing is proceeding.

Write: 1..

↓

Complete!

↓

Clear

↓

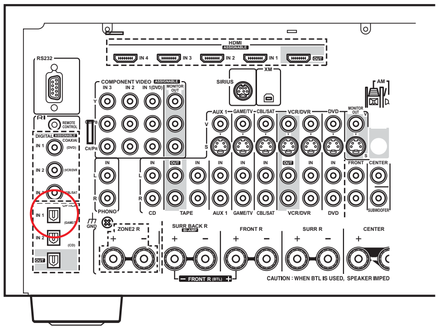
The unit is put into the Standby mode.

3. After the update ends, turn off the unit's main power switch or pull the power cord off the wall socket.
4. Remove the jig from the unit and power on the unit again. Confirm the new version number.

FIRMWARE UPDATE -4

Preparation for Update (DSP, all in one)

TX-SR805 Rear Panel
(Target Unit)



A: Hardware and Software

1. blank CD-R, PC, CD-R writing software
2. Writing soft: “CD_SR805123_07601A_07518A_07820B.wav”
   (File name depends on the version.)
   Store it in a blank CD-R as a music CD in advance.
3. CD player with Optical output terminal
   Note: Some CD players and a lot of DVD players process audio signal before output. Such players cannot be used for this update.
4. Optical cable

B: First Procedure

1. Connect a **CD Player** with the target unit via **Optical Input 1**.
2. Power on the unit and wait for more than 10 seconds.

DSP Update Procedure

1. Press and hold down **[DISPLAY]** button and then press **[STANDBY/ON]** button to show Main FW version when the unit is powered on.

<e.g.>

```
Main:
8 1.05/07903A
```

2. Press **[Tone +]** button while the Main version is displayed. Then, 1st DSP FW version will be displayed.

<e.g.>

```
DSP 1st:
SR8051:07601A
```

3. Press **[Return]** button while the target DSP version is displayed. Then, the following message will appear.

```
S/PDIF Update..
```

4. Play the DSP FW CD-R with the CD player. After playback starts, the messages will change as below.

Estimated Time in CD Player

0:15

```
Writing...
1st DSP
```

0:30

```
S/PDIF Update..
```

0:42

```
Writing...
2nd DSP
```

0:52

```
S/PDIF Update..
```

1:04

```
Writing...
3rd DSP
```

If playback is finished without the above message, please try again.
Note: Some DVD players are not suitable for this update. If writing results in failure, use another model of player.
DURING WRITING, DO NOT TURN OFF THE POWER and DO NOT DISCONNECT OPTICAL CABLE.
If writing is stopped in the middle, Flash IC may need replacing.

After writing of 3rd DSP ends, the message in Step 3 will appear again.
Make sure that no more “Writing...” will appear.

```
S/PDIF Update..
```

Check Points:

1. “Writing... 1st DSP” was shown.
2. CD player has been playing for more than 1mins 4 secs and finishes playback.

5. Press [Standby/On] and see Front Display change as below.

↓

```
Clear
```

↓

```

```

The unit is put into the Standby mode.

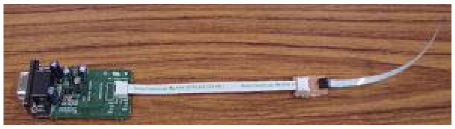
6. Turn on the unit and confirm the new version number.

FIRMWARE UPDATE -5

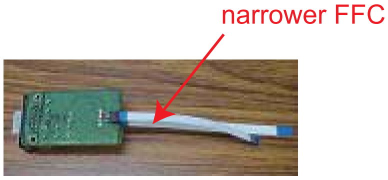
Preparation for Update (Video)

A: Hardware

1. PC with RS232C terminal
2. RS232 straight through cable
3. 0JHUDSON (Adaptor Jig)



or


narrower FFC

B: Software

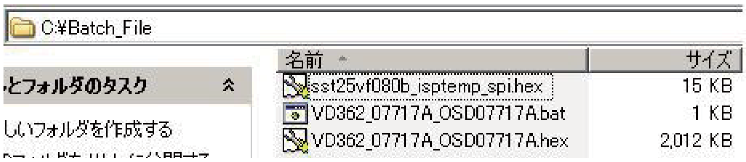
GProbe 5[1].4.0.3.zip

Unzip it and install the software by clicking “GProbe5.4.0.3.exe” in advance referring to FIRMWARE UPDATE-9-10.

C: First Procedure

1. Create a folder in C drive and name it “Batch_File.”
   C:\Batch_File

2. Store 3 provided files in the folder.
   <e.g.>



C:¥Batch_File

とフォルダのタスク

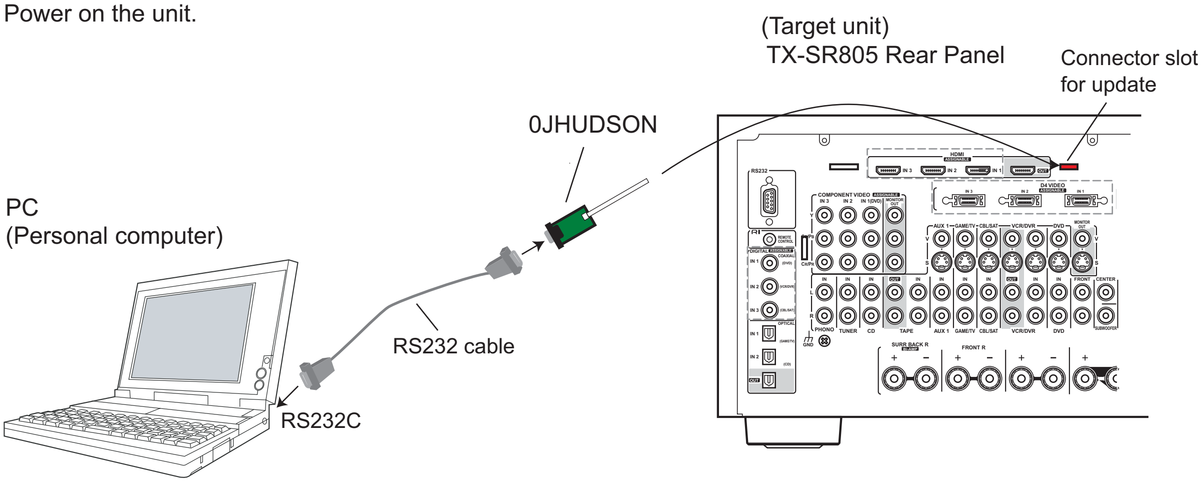
しいフォルダを作成する

名前	サイズ
sst25vf080b_isptemp_spi.hex	15 KB
VD362_07717A_OSD07717A.bat	1 KB
VD362_07717A_OSD07717A.hex	2,012 KB

sst25vf080b_istemp_spi.hex : for communication
VD***_******_OSD******.bat : Batch file
VD***_******_OSD******.hex : Program file

D: Connection and Setup

1. While the target unit is off, connect 0JHUDSON & RS232 cable to RS232 port of the PC.
2. Connect the FFC of the jig to the connector slot on the rear panel of TX-SR805/TX-SA805/DTR-7.8/ TX-SR705/DTR-6.8.
3. Power on the unit.

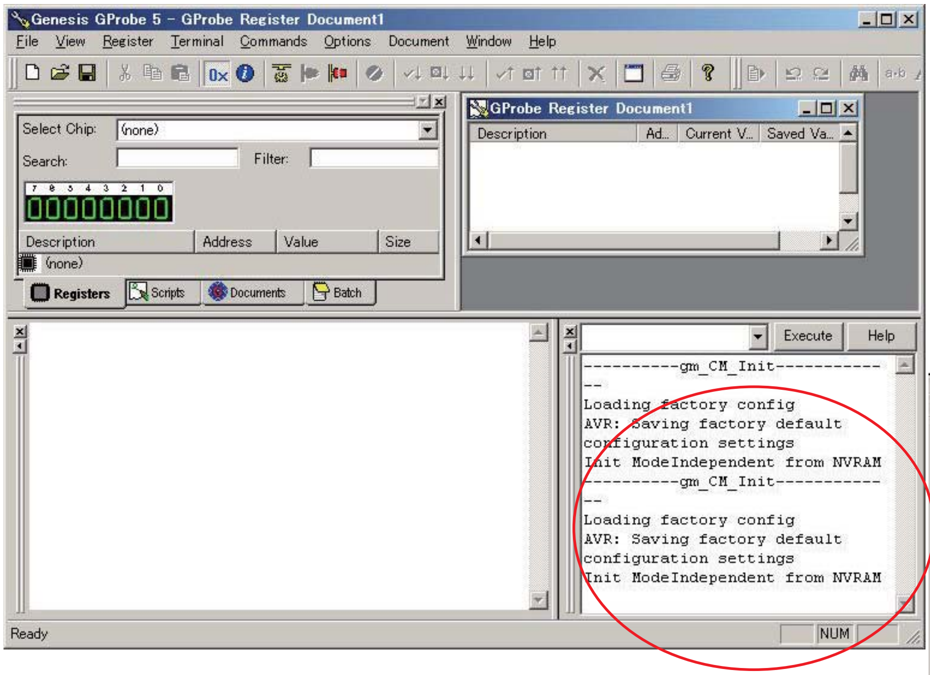

(Target unit)
TX-SR805 Rear Panel
Connector slot
for update
0JHUDSON
PC
(Personal computer)
RS232 cable
RS232C

FIRMWARE UPDATE -6

Video Update Procedure

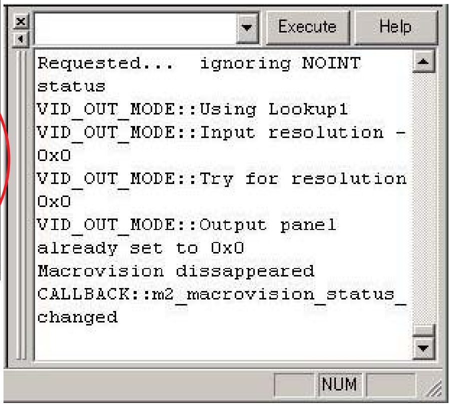
1. Start GProbe by clinking the icon.

2. Turn on the unit and make sure that some information appears in the bottom right corner of the window.
   If nothing appears in this area, the PC does not communicate with the unit.


Genesis GProbe 5 - GProbe Register Document1
File View Register Terminal Commands Options Document Window Help
Select Chip: (none)
Search:
Filter:
7 6 5 4 3 2 1 0
00000000
Description Address Value Size
(none)
Registers Scripts Documents Batch
GProbe Register Document1
Description Ad.. Current V.. Saved Va..
Execute Help
Ready
NUM

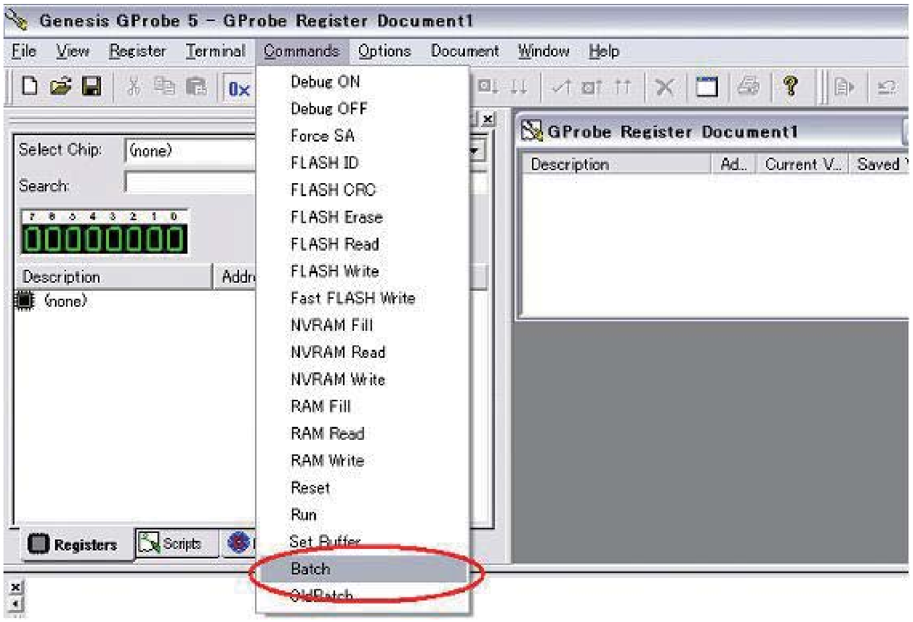
```
----------gm_CM_Init-----------
--
Loading factory config
AVR: Saving factory default
configuration settings
Init ModeIndependent from NVRAM
----------gm_CM_Init-----------
--
Loading factory config
AVR: Saving factory default
configuration settings
Init ModeIndependent from NVRAM
```

Wait until reading stops.


Execute
Help
NUM

```
Requested...  ignoring NOINT
status
VID_OUT_MODE::Using Lookup1
VID_OUT_MODE::Input resolution -
0x0
VID_OUT_MODE::Try for resolution
0x0
VID_OUT_MODE::Output panel
already set to 0x0
Macrovision dissappeared
CALLBACK::m2_macrovision_status_
changed
```

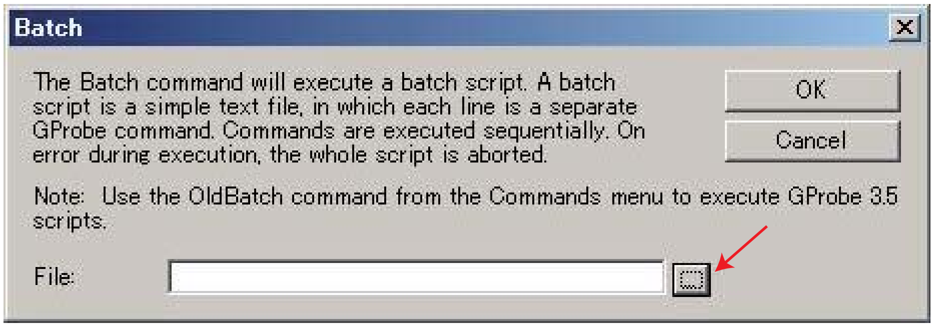
3. Click “Commands” in the menu bar and select “Batch.”


Genesis GProbe 5 - GProbe Register Document1
File View Register Terminal Commands Options Document Window Help
Select Chip: (none)
Search:
7 6 5 4 3 2 1 0
00000000
Description Addr
(none)
Registers Scripts
Debug ON
Debug OFF
Force SA
FLASH ID
FLASH CRC
FLASH Erase
FLASH Read
FLASH Write
Fast FLASH Write
NVRAM Fill
NVRAM Read
NVRAM Write
RAM Fill
RAM Read
RAM Write
Reset
Run
Set Buffer
Batch
OldBatch
GProbe Register Document1
Description Ad.. Current V.. Saved

FIRMWARE UPDATE -7

Video Update Procedure(Continued)

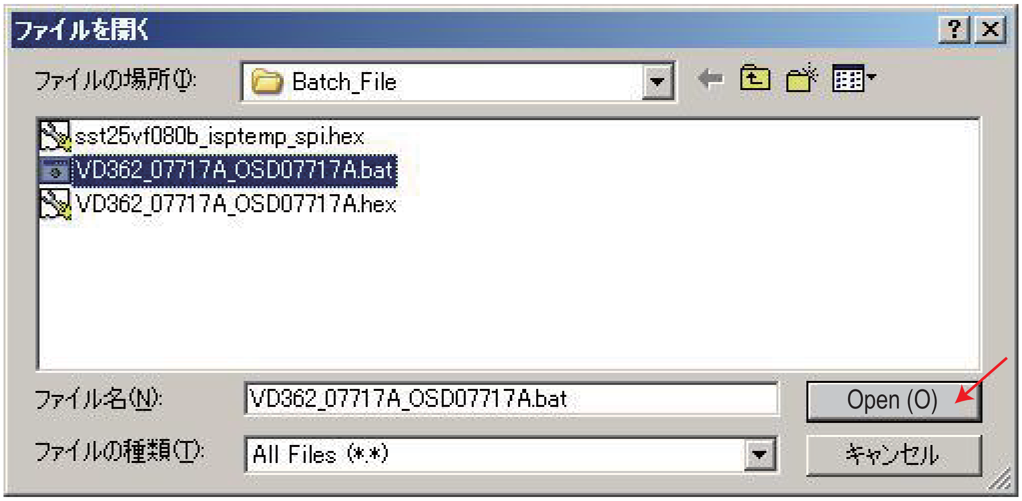
4. Start Batch file by selecting the batch file stored in First Procedure.


Batch
OK
Cancel

The Batch command will execute a batch script. A batch script is a simple text file, in which each line is a separate GProbe command. Commands are executed sequentially. On error during execution, the whole script is aborted.

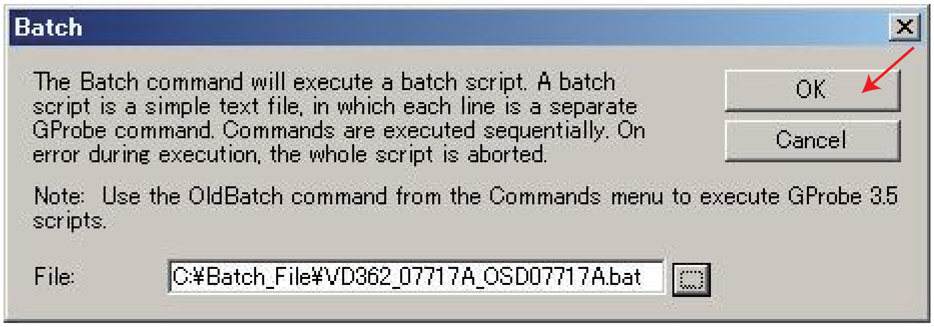
Note: Use the OldBatch command from the Commands menu to execute GProbe 3.5 scripts.

File:


ファイルを開く
ファイルの場所(I):
Batch_File
sst25vf080b_isptemp_spi.hex
VD362_07717A_OSD07717A.bat
VD362_07717A_OSD07717A.hex
Open (O)
キャンセル

ファイル名(N): VD362_07717A_OSD07717A.bat

ファイルの種類(T): All Files (*.*)

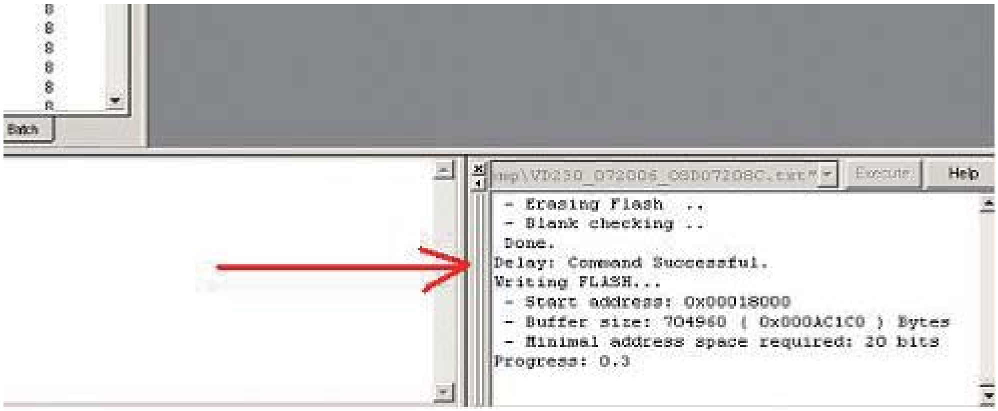

Batch
OK
Cancel

The Batch command will execute a batch script. A batch script is a simple text file, in which each line is a separate GProbe command. Commands are executed sequentially. On error during execution, the whole script is aborted.

Note: Use the OldBatch command from the Commands menu to execute GProbe 3.5 scripts.

File: C:¥Batch_File¥VD362_07717A_OSD07717A.bat

5. Make sure that " Command Successful. Writing FLASH..." appears in the bottom right corner of the window.


Batch
mp\VD230_072006_OSD07208C.txt
Execute
Help

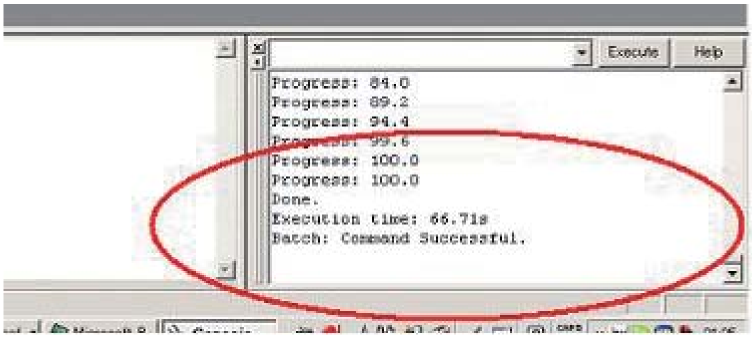
```
 - Erasing Flash  ..
 - Blank checking ..
 Done.
Delay: Command Successful.
Writing FLASH...
 - Start address: 0x00018000
 - Buffer size: 704960 ( 0x000AC1C0 ) Bytes
 - Minimal address space required: 20 bits
Progress: 0.3
```

Note:
Front Display on the unit will show no information about writing but continue to display what was shown before.

FIRMWARE UPDATE -8

Video Update Procedure(Continued)

6. Make sure that “Progress: 100.0 ...... Command Successful” is shown as below.

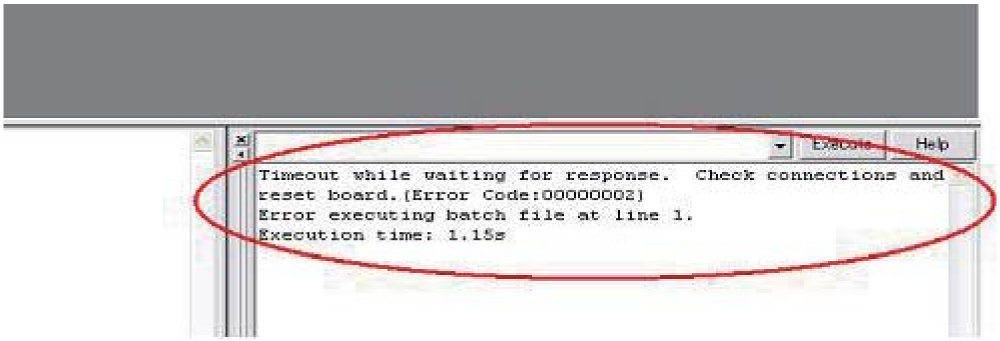


```
Progress: 84.0
Progress: 89.2
Progress: 94.4
Progress: 99.6
Progress: 100.0
Progress: 100.0
Done.
Execution time: 66.71s
Batch: Command Successful.
```

7. Turn off and on the unit.

8. Confirm the new version number.

NOTE:
If “Command Successful Writing FLASH...” does not appear,
turn off and on the unit, and try again from Step 1.



```
Timeout while waiting for response.  Check connections and
reset board.(Error Code:00000002)
Error executing batch file at line 1.
Execution time: 1.15s
```

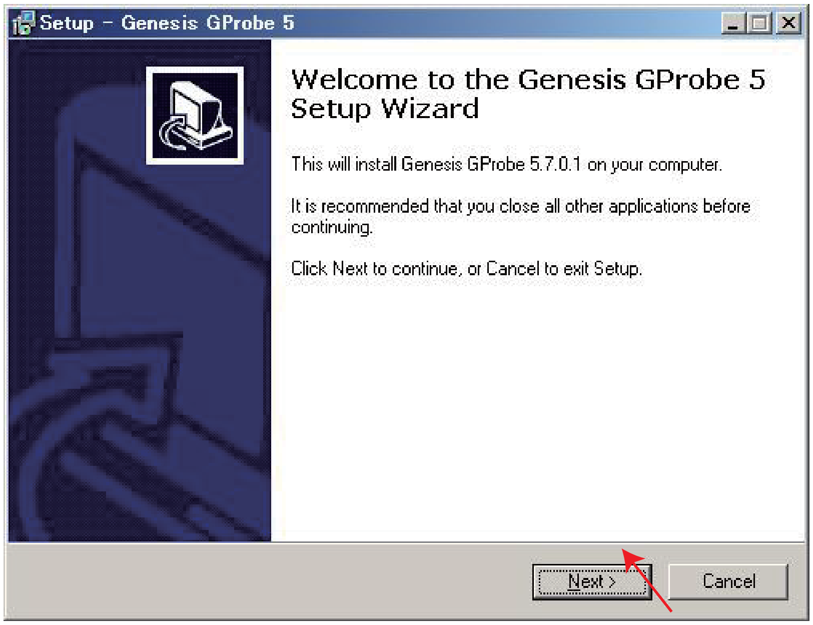
FIRMWARE UPDATE -9

How to install GProbe

This procedure is necessary to start Video Upudate (See FIRMWARE UPDATE -5)

1. Unzip “GProbe 5[1].4.0.3.zip” and double-click the extracted file “GProbe5.4.0.3.exe.”

2. Follow the instructions on the window as below.
   Note: Not all the windows are shown in this procedure.

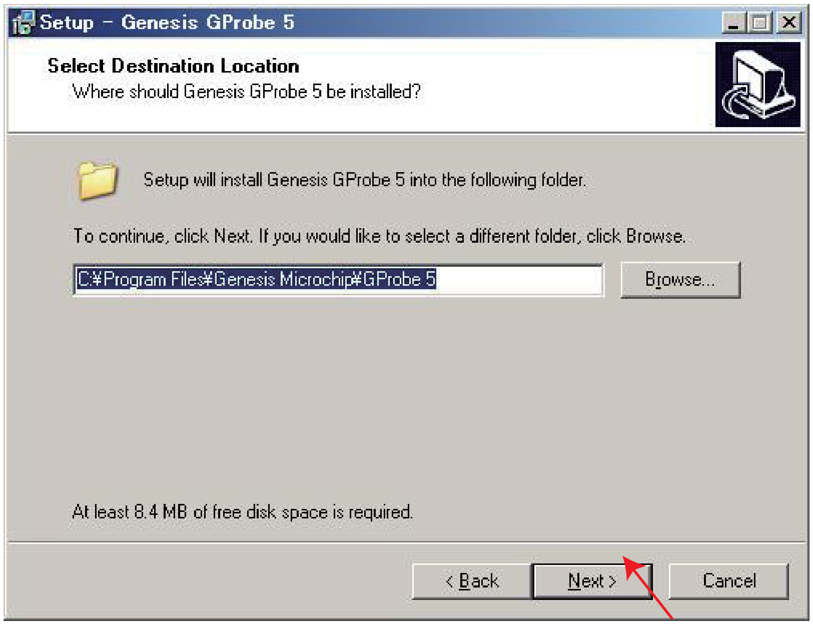


Welcome to the Genesis GProbe 5 Setup Wizard

This will install Genesis GProbe 5.7.0.1 on your computer.

It is recommended that you close all other applications before continuing.

Click Next to continue, or Cancel to exit Setup.



Select Destination Location

Where should Genesis GProbe 5 be installed?

Setup will install Genesis GProbe 5 into the following folder.

To continue, click Next. If you would like to select a different folder, click Browse.

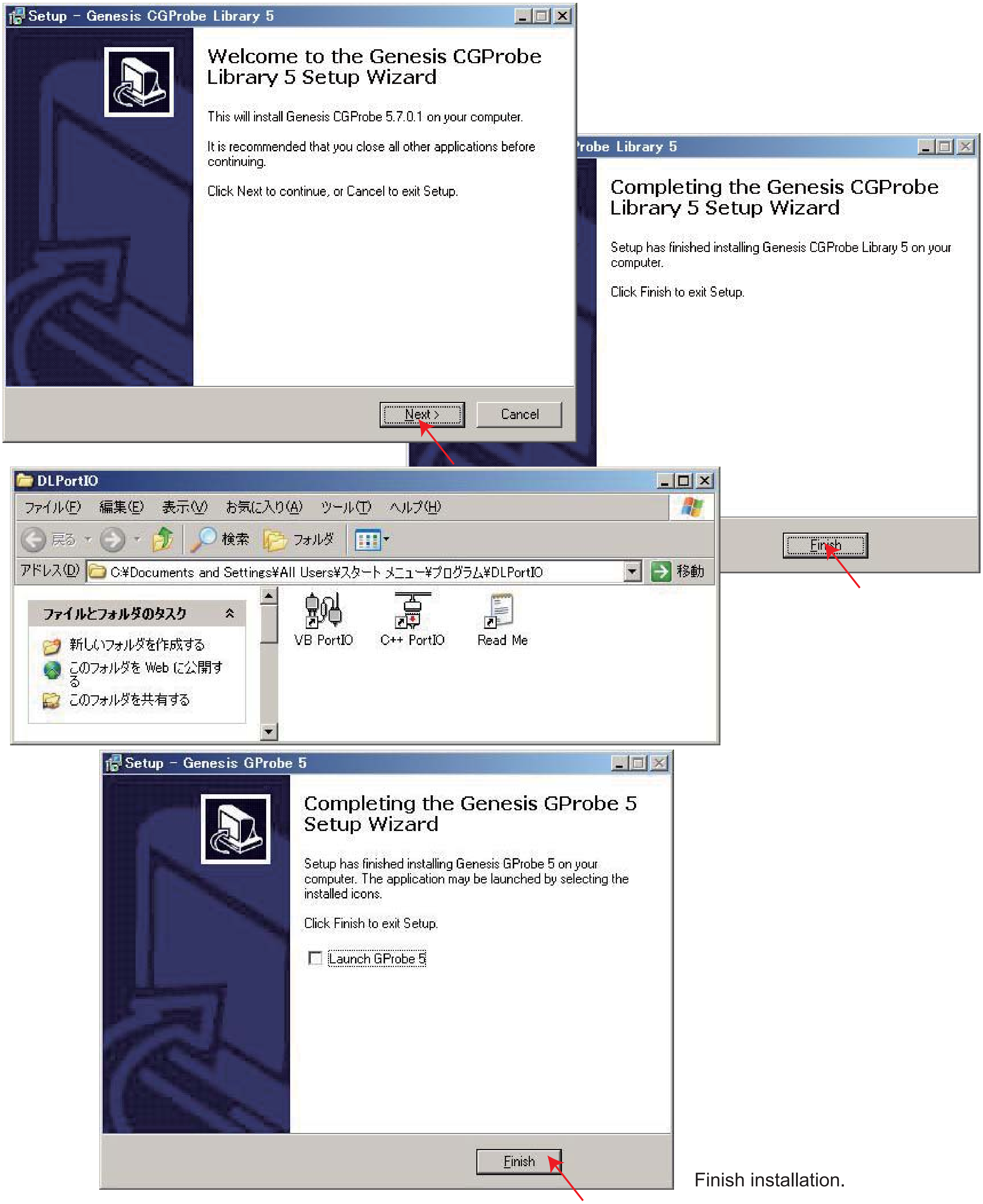
C:¥Program Files¥Genesis Microchip¥GProbe 5

At least 8.4 MB of free disk space is required.

FIRMWARE UPDATE -10

How to install GProbe(Continued)

3. Another Setup Wizard starts.



Setup - Genesis CGProbe Library 5

Welcome to the Genesis CGProbe Library 5 Setup Wizard

This will install Genesis CGProbe 5.7.0.1 on your computer.

It is recommended that you close all other applications before continuing.

Click Next to continue, or Cancel to exit Setup.

Next >
Cancel

Completing the Genesis CGProbe Library 5 Setup Wizard

Setup has finished installing Genesis CGProbe Library 5 on your computer.

Click Finish to exit Setup.

DLPortIO

ファイル(F)
編集(E)
表示(V)
お気に入り(A)
ツール(T)
ヘルプ(H)
戻る
検索
フォルダ
アドレス(D)
移動
ファイルとフォルダのタスク
新しいフォルダを作成する
このフォルダを Web に公開する
このフォルダを共有する
VB PortIO
C++ PortIO
Read Me

アドレス(D) C:¥Documents and Settings¥All Users¥スタート メニュー¥プログラム¥DLPortIO

Setup - Genesis GProbe 5

Completing the Genesis GProbe 5 Setup Wizard

Setup has finished installing Genesis GProbe 5 on your computer. The application may be launched by selecting the installed icons.

Click Finish to exit Setup.

☐ Launch GProbe 5

Finish installation.

OPERATION CHECK-1

SPEAKER PROTECT-1 (DC VOLTAGE DETECTION)

[When]

1. Exchange power transistors (Q6050 - 6056, Q6060 - 6066, Q6080 - 6086, Q6090 - 6096).
2. Exchange amplifier PC board ass'y (NAAMP-9061, 9062, NACLA-9063 - 9069).

[Procedure]

<Note>
No load. No input.

1. Press and hold down CD button, then press STANDBY/ON button while the unit is Power ON.
" Test - _ " is displayed only for 5 seconds.

Test - _ — Blinks

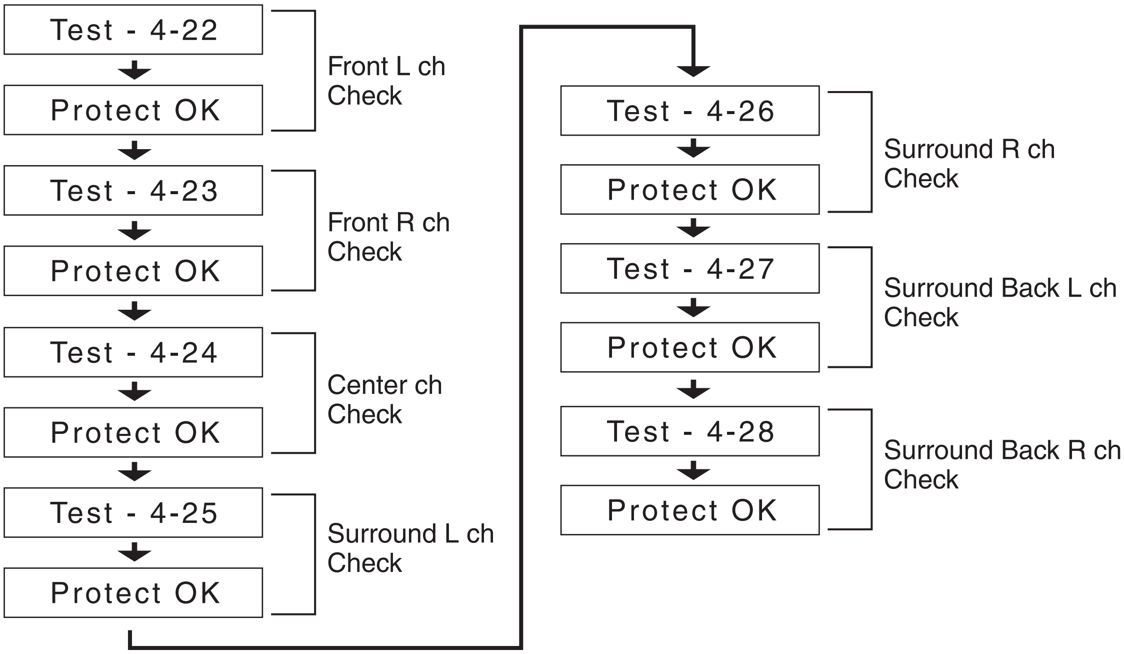
2. Press GAME/TV button, while the characters of " Test - _ " are displayed.
The unit will be in the state of " Test-4-00 ".

Test - 4-00

3. Repeatedly press TONE + button until the characters of " Test-4-21 " are displayed.

Test - 4-22

Check whether the operation starts and continues automatically as follows.


Test - 4-22
Protect OK
Front L ch Check
Test - 4-23
Protect OK
Front R ch Check
Test - 4-24
Protect OK
Center ch Check
Test - 4-25
Protect OK
Surround L ch Check
Test - 4-26
Protect OK
Surround R ch Check
Test - 4-27
Protect OK
Surround Back L ch Check
Test - 4-28
Protect OK
Surround Back R ch Check

If all channels are OK, the characters of " Test - 4 - 36 " are displayed.

Test - 4-36

4. Press STANDBY/ON button.

Clear → Turn off

OPERATION CHECK-2

SPEAKER PROTECT-2 (CURRENT DETECTION)

[When]

1. Exchange power transistors (Q6050 - 6056, Q6060 - 6066, Q6080 - 6086, Q6090 - 6096).
2. Exchange amplifier PC board ass'y (NAAMP-9061, 9062, NACLA-9063 - 9069).

[Procedure]

<Note>
No input.
Do not check two or more channels at the same time.
Do not connect a dummy load to speaker terminal longer than 2 seconds.

1. Press and hold down CD button, then press STANDBY/ON button while the unit is Power ON.
   " Test - _ " is displayed only for 5 seconds.

   Test - _ Blinks

2. Press GAME/TV button, while " Test - _ " is displayed.
   The unit will be in the state of " Test-4-00 ".

   Test - 4-00

3. Repeatedly press TONE+ button until " Test-4-36 " is displayed.

   Test - 4-36

4. Connect the dummy load of 3 ohms to the Front L ch speaker terminal.
   At this time, confirm that the speaker relay is not turned off.

   Test - 4-36

5. Connect the dummy load of 1 ohm to the Front L ch speaker terminal.
   At this time, confirm that the speaker relay is turned off and" Protect " is displayed.

   Protect

   Disconnect the dummy load immediately after checking the display of " Protect ".

   Test - 4-36

6. Check other channels according to the same procedure as 4 and 5.
   Front R, Center, Surround L, Surround R, Surround Back L, Surroun R

7. Press STANDBY/ON button.

   Clear → Turn off

OPERATION CHECK-3

CONTROL OF POWER SUPPLY (OUTPUT SENSOR AND THERMAL SENSOR)

[When]

1. Exchange power transistors (Q6050 - 6056, Q6060 - 6066, Q6080 - 6086, Q6090 - 6096).
2. Exchange power amplifier PC board ass'y (NAAMP-9061, 9062, NACLA-9063 - 9069).
3. Exchange thermal sensor PC board ass'y (NAETC-9042, 9043).

[Procedure]

<Note>
No output. No input.

Output sensor

1. Press and hold down CD button, then press STANDBY/ON button while the unit is Power ON.
   " Test - _ " is displayed only for 5 seconds.

Test - _

Blinks

2. Press GAME/TV button while " Test - _ " is displayed.
   The unit will be in the state of " Test-4-00 ".

Test - 4-00

3. Repeatedly press TONE＋ button until " Test-4-37 " is displayed.

Test - 4-37

4. At this time, confirm that the red characters of " FM STEREO " is displayed.

Test - 4-37

FM STEREO

5. Press STANDBY/ON button.

Clear →

Turn off

Thermal sensor

1. Press and hold down DISPLAY button, then press STANDBY button when the unit is power ON.
   The main microprocesor version will be displayed only for 3 seconds.

<Ex.>

Main:
8 1. 05/07903A

2. Press TONE button while the version is displayed. The temperatures of two thermal sensors(Q6380, Q6381) will be displayed.

<Ex.>

T: 30/30 FAN: -

Unit is °C

3. Confirm that the displayed temperature is within +/-20 degree C from the ambient temperatures.

4. Press STANDBY/ON button.

Clear →

Turn off

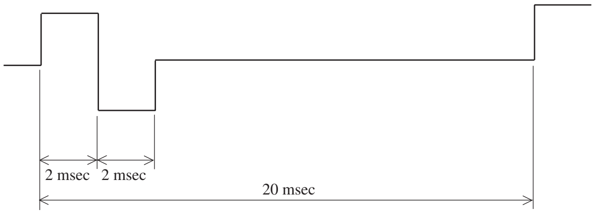
OPERATION CHECK-4

Condition of Protect Mode

The unit will go into Protect mode under the following conditions.
(T: Thermal sensor temperature)

1. Thermal condition
   Immediately T <= -30 ℃
   or
   Immediately T > 110 ℃
2. DC voltage condition
   The sum of dc voltage of 7 channel speaker outputs is more than 7 V.
3. Current condition
   Protect will be On if speaker output ac current >= 35 A
   Protect will not be On if speaker output ac current >= 11.7 A

   This condition is equivalent to OPERATION CHECK-2. Refer to the page 2.
   Test wave form:



Condition of Power Supply Voltage Control

The power supply voltage(VH, VM or VL) for power amplifiers is changed by the relays: RL6601, 6602, 6611, 6612 on NAPS-9040.
VH > VM > VL
T: Thermal sensor temperature
VOLH: Pin #99 input voltage of Main microprocessor: Q7001 (Refer to SD-4:D5 and SD-8:D2 of Schematic Diagram)
This is created by the largest ac voltage in 7 speaker outputs.

Conditions:

Speaker imp. = 6 or 8 ohm

VH: 0V < VOLH < 0.4V
and
T < 85 ℃
VM: 0.4V < VOLH < 2.0V
and
T < 85 ℃
VL: 2.0V < VOLH < 3.3V(Vcc)
and
T < 85 ℃
VL: T > 85 ℃

Speaker imp. = 4 ohm or BTL

VM: 0V < VOLH < 0.4V
and
T < 85 ℃
VL: 0.4V < VOLH < 2.0V
and
T < 85 ℃
VL: 2.0V < VOLH < 3.3V(Vcc)
and
T < 85 ℃
VL: T > 85 ℃

Condition of Cooling Fan Operation

The cooling fan will stop or rotate under the following conditions.

	Thermal Sensor Temperature(T)			
VOLH		60℃	70℃	80℃
0V 0.4V	STOP	STOP	LOW SPEED	MID SPEED
0.4V 2.0V	STOP	MID SPEED	HIGH SPEED	HIGH SPEED
2.0V	MID SPEED	HIGH SPEED	HIGH SPEED	HIGH SPEED

Note:
“VOLH=0.4V” is equivalent to 0.8W(8 ohm, 7 ch)
“VOLH=2.0V” is equivalent to Max power(8 ohm, 3 ch)

DEBUG MODE-1

The operations of DSP and DIR etc are able to be checked by the information displayed on FL in this DEBUG MODE.
This information may help to pursue the cause of trouble.

To set in DSP debug mode

1. Press and hold down DISPLAY button, then press STANDBY/ON button while the unit is powered ON.
   The version number of microprocessor is displayed only for 3 seconds.

<Ex.>

```
Main:
  8 1.05/07903A
```

2. Press TONE+ button within 3 seconds above, the version number of 1st DSP is displayed.

<Ex.>

```
DSP 1st:
SR8051:07601A
```

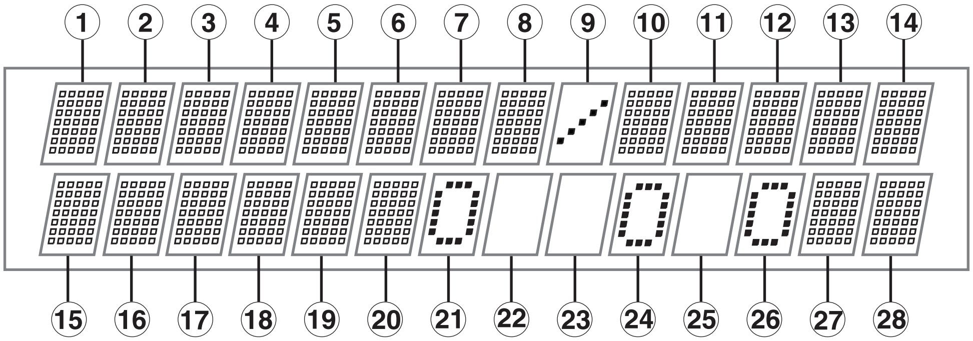
3. Press DISPLAY button while the 1st DSP version is displayed. The status of DSP and DIR will be displayed.

<Ex.>

```
E1A48K0N/0FFPo
FFFFFF0  0  000
```

To exit
Press STANDBY/ON button.

Content of display



① DIR Input Lock
E = UNLOCK
= LOCK

② DIR Input RX
0 = None
1 = COAX1
2 = COAX2
3 = COAX3
4 = OPT 1
5 = OPT 2
6 = OPT 3(Not Used)
7 = OPT(FRONT)
8 = HDMI1
9 = HDMI2
A = HDMI3
B = HDMI4
C = NET(Not Used)

③ DIR/ADC
D = Digital(SPDIF)
A = Analog
M= Anolog Multich
p = PCM Fixed
d = DTS Fixed
I = Digital(I2S_1)
S = Digital(I2S_4)
d = Digital(DSD)

⑦ DIR Detect Type
0 = Analog
1 = PCM
2 = Not PCM
3 = Data
4 = DTS CD (Not used)
5 = Multich
6 = Not Decided

④ - ⑥ Sampling Frequency and Emphasis
32K = 32 kHz without Emphasis
44K = 44.1 kHz without Emphasis
48K = 48kHz without Emphasis
64K = 64 kHz
88K = 88.2 kHz
96K = 96 kHz
176 = 176.4 kHz
192 = 192 kHz
32e = 32 kHz with Emphasis
44e = 44.1 kHz with Emphasis
48e = 48 kHz with Emphasis

DEBUG MODE-2

Content of display(Continued)

⑧ CODEC CLOCK MODE

N = Normal
U = Up Sampling
H = High Sampling (Double Rate)
D = Down Sampling
Q = Quad Rate

⑨ Not Used(Slash)

⑩ DSP Port

bit0 = NIC —(Normal state)
bit1 = DEC
bit2 = BUSY
bit3 = Exec Wait
(bit1–bit3: Abnormal state)

⑪-⑫ DSP Sequence

26 = Not Free
2F = Mute Control
FF = Free

⑬ DSP Detect Format

P = PCM (Analog)
D = Dolby Digital
d = DTS
A = AAC
S = DSD
p = Dolby Digital+
T = TrueHD
H = DTS-HD High Resolution
M = DTS-HD Master Audio
? = UNKNOWN

⑭ DSP Decode

o = Decode OK
x = Decode NG

⑮-⑯ 1st DSP Sequence

04-0D = Boot
10-17 = Update Mode
20-33 = DSP Setting
FF = Free

⑰-⑱ 2nd DSP Sequence

04-0D = Boot
10-17 = Update Mode
20-33 = DSP Setting
FF = Free

⑲-⑳ 3rd DSP Sequence

04-0D = Boot
10-17 = Update Mode
20-33 = DSP Setting
E0-E2 = Auto Speaker Setup
FF = Free

㉑-㉖ Not Used

⑲-⑳ MPU MUTE Output Cause

bit0 = Selector IC
bit1 = Effector
bit2 = DSP
bit3 = DIR
bit4 = HDMI
bit5 = XM
bit6 = Auto Speaker Setup
bit7 = Speaker Config

Trouble Shooting by DEBUG MODE

This debug mode will help in digital audio no sound trouble.
Check information on FL display and the related devices or circuits.

Note:
MPU is short for Micro Processor: Q7001.
1st DSP: Q3401, 2nd DSP: Q3501, 3rd DSP: Q3601
DIR: Q3041
DAC: Q3701, Q3721, Q3741, Q3761, Q3781
Flash ROM: Q3451, Q3551, Q3651
SDRAM: Q3461, Q3471, Q3561, Q3661
Audio Selector: Q4029

Digit no on FL	Symptom on display	Cause	Check
①	"E" is displayed	No input signal to DIR.	Related devices from digital input to DIR.
④-⑥	Displayed freq. is different from input	No input signal to DIR.	Related devices from digital input to DIR.
⑦	Displayed format is different from input	No input signal to DIR.	Related devices from digital input to DIR.
⑬	Displayed format is different from input	Input signal to DSP is no good.	Related devices from DIR to DSP.
⑭	"x" is displayed	Interface between DSP and MPU is no good.	Related devices from MPU to DSP.

DEBUG MODE-3

Trouble Shooting by Debug Mode-2

(Continued)

Digit no on FL	Symptom on display	Cause	Check
⑲ - ⑳	This identifies IC which outputs error	Some IC outputs error to MPU.	Audio Selector, DSP, DIR & related devices.
⑩	Continue to display "1"	Interface between DSP and MPU is no good.	Related devices from MPU to DSP.
	Continue to display "2"	Connection from DIR to DSP is no good.	Related devices from DIR to DSP.
	Continue to display "3" to "7"	Interface between DSP and MPU is no good.	Related devices from MPU to DSP.
	Continue to display "8" to "F"	DSP Sequence is no good.	Check ⑮ - ⑳ items.
⑮ - ⑳	Continue to display "03"	Communication between DSP and MPU is no good.	Check connection between DSP and MPU. Power supply pin, reset port and clock input of DSP. Flash ROM program may be no good. DSP or MPU is broken.
	Continue to display "05"	Writing from MPU to DSP is no good.	Flash ROM program is no good, upgrade. DSPSDO pin of MPU. Flash ROM or SDRAM is no good, replace. DSP or MPU is broken, replace.
	Continue to display "08"	DSP program is no good.	Flash ROM program is no good, upgrade. Flash ROM or SDRAM is broken, replace. Check connection between DSP and Flash ROM.
	Continue to display "09" to "0C"	DSP program is no good.	Flash ROM program is no good, upgrade. Flash ROM or SDRAM is broken, replace. Check connection between DSP and Flash ROM.
	Continue to display "17"	Powered off during DSP program update.	Press STANDBY/ON button while pushing. VCR/DVR button when the unit is powered on.
	Display "21", then return and signal format indicator is flashing	DSP program is no good.	Flash ROM program is no good, upgrade. Flash ROM or SDRAM is broken, replace. Check connection between DSP and Flash ROM. Clock freq. to DSP.
	Continue to display "22" to "24"	DSP program is no good or Audio clock to DSP is no good.	Flash ROM program is no good, upgrade. Flash ROM or SDRAM is broken, replace. Check connection between DSP and Flash ROM. Clock freq. to DSP or Audio clock to DSP.
	Continue to display "30" to "33"	DSP program is no good or Audio clock to DSP is no good.	Flash ROM program is no good, upgrade. Flash ROM or SDRAM is broken, replace. Check connection between DSP and Flash ROM.
	Continue to display "26" to "2F"	DSP setting is failured.	Flash ROM program is no good, upgrade. Flash ROM or SDRAM is broken, replace. Check connection between DSP and Flash ROM.

DEBUG MODE-4

Trouble Shooting by displaying Service Information

This service information display system is helpful in analysing the status when the unit goes into Protect mode and is powered off. Pay attention that the status will change if a button is pushed.

1. Press and hold down DISPLAY button, then press STANDBY/ON button while the unit is powered ON.
   The version number of microprocessor is displayed only for 3 seconds.

<Ex.>

```
Main:
 8 1.05/07903A
```

2. Press SETUP button within 3 seconds above, the following informations are displayed.

<Ex.>

```
- 50° C   30   0D
01:23        10hour
```

Information displayed

Power off Cause : P : Protect
: - : Other
Temperature : xxx °F or xxx °C
Volume Level : xx
Listenning Mode : xx (Refer to the code list below)
Time after Power on : xx:xx
Time after Initialize : xxhour

4. Press RETURN button. The information will be cleared.

<Ex.>

```
ProtectDataCLR
```

Listening Mode Code List

Listening Mode	Code	Listening Mode	Code	Listening Mode	Code	Listening Mode	Code
Pure Audio	01	PLII Music	21	Dolby Digital	30	+Neo:6	37
Direct	02	PLII Game	22	DTS	30	DTS Matrix	31
Stereo	03	PLIIx Movie	23	DTS96/24	3B	DTS Discrete	31
Mono	04	PLIIx Music	24	AAC	30	THX Cinema	50
Mono Movie	07	PLIIx Game	25	MultiCh	30	THX Surround EX	58
Orchestra	09	Neo:6 Cinema	26	Dolby Digital Plus	30	THX Ultra2 Cinema	5C
Unplugged	0A	Neo:6 Music	27	Dolby TrueHD	30	THX Music Mode	5D
Studio-Mix	0B	Neural Surround	28	DTS-HD High Resolution	30	THX Games	5E
TV Logic	0C	PLII Movie THX	40	DTS-HD Master Audio	30	+PLIIx Movie THX	59
All CH Stereo	0D	PLIIx Movie THX	41	DSD	30	+Neo:6 THX	57
Full Mono	0E	Neo:6 Cinema THX	42	+PLIIx Movie	39	+Neural-THX	3D
PLII Movie T-D	0F	PLII Movie THX Games	43	+PLIIx Music	3A	DTX Matrix THX	51
PLII Movie	20	Neo:6 Cinema THX Games	44	Dolby EX	38	DTS Discrete THX	52
		Neural-THX	29				

ADJUSTMENT PROCEDURES-1

IDLING CURRENT ADJUSTMENT

[When]

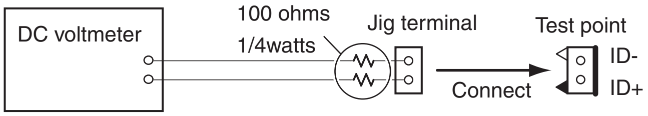
1. Exchange power transistors (Q6050 - 6056, Q6060 - 6066, Q6080 - 6086, Q6090 - 6096).
2. Exchange amplifier PC board ass'y (NAAMP-9061, 9062, NACLA-9063 - 9069).

[Procedure]

<Note> No load and No signal

Refer to <Fig-1, 2, 3> in " ADJUSTMENT PROCEDURE-2, 3, 4 " for the adjustment points and the test points.

1. Before idling adjustment, turn the trimming resistors to counter clockwise.
2. Connect the dc voltmeter to test points,
   using two 100 ohm resistors between the poles of the jig terminal and the dc voltmeter terminals.



3. Connect the ac power cord to wall outlet.
4. Press STANDBY/ON button to turn the power on.
5. Adjust the trimming resistors as the following procedure immediately after power on.

Channel	Mark	Adjustment point (Trimming resistor)	Measuring point (Test point)	Adjustment value
Front Left	L	R6040	P6070	3.0 mV
Front Right	R	R6041	P6071	3.0 mV
Center	C	R6042	P6072	3.0 mV
Surround Left	SL	R6043	P6073	3.0 mV
Surround Right	SR	R6044	P6074	3.0 mV
Surround Back Left	SBL	R6045	P6075	3.0 mV
Surround Back Right	SBR	R6046	P6076	3.0 mV

6. Wait for 4 - 6 minutes. (Heat running)
7. Re-adjust the trimming resistors as the following procedure.

Channel	Adjustment point	Measured value	→	Adjustment value	Specifications (*In a stable state)
Front Left, Right and Center	R6040, R6041 and R6042	In case below 3 mV	→	3 mV	3 +/- 1 mV
		In case 3 - 4 mV	→	No re-adjustment	
		In case over 4 mV	→	4 mV	
Surround Left	R6043				
Surround Right	R6044				
Surround Back Left	R6045				
Surround Back Right	R6046				

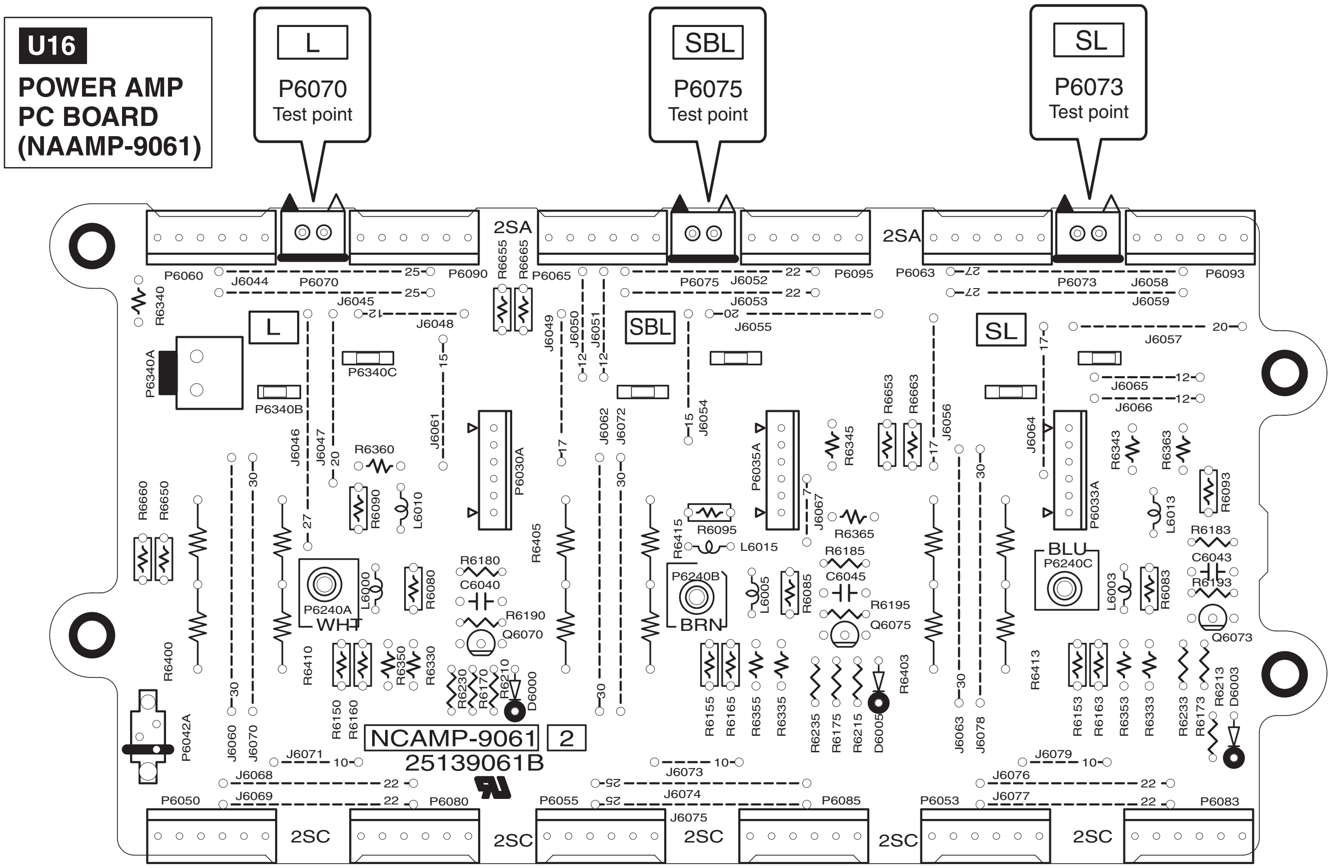
8. Disconnect the dc voltmeter.
9. Press the STANDBY/ON button to turn the power off.
10. Disconnect the ac power cord of the unit.

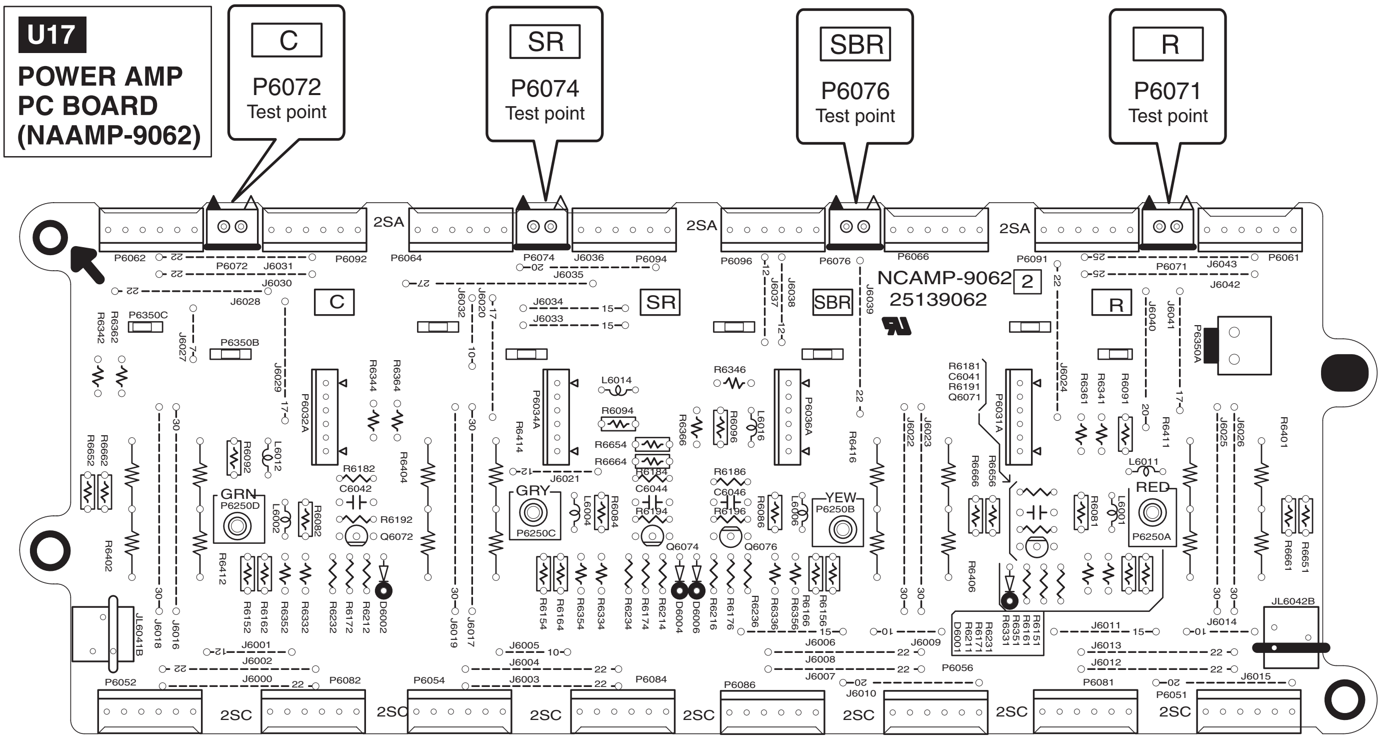
* Idling currents are stabilized in about 10 minutes after power on.

ADJUSTMENT PROCEDURES-2

IDLING CURRENT ADJUSTMENT

<Fig-1>


U16
POWER AMP
PC BOARD
(NAAMP-9061)
L
P6070
Test point
SBL
P6075
Test point
SL
P6073
Test point
2SA
2SC
L
SBL
SL
P6240A
WHT
P6240B
BRN
P6240C
BLU
NCAMP-9061 2
25139061B
P6060
P6070
P6090
P6065
P6075
P6095
P6063
P6073
P6093
P6050
P6080
P6055
P6085
P6053
P6083
Q6070
Q6075
Q6073
D6000
D6005
D6003


U17
POWER AMP
PC BOARD
(NAAMP-9062)
C
P6072
Test point
SR
P6074
Test point
SBR
P6076
Test point
R
P6071
Test point
2SA
2SC
C
SR
SBR
R
P6250D
GRN
P6250C
GRY
P6250B
YEW
P6250A
RED
NCAMP-9062 2
25139062
P6062
P6072
P6092
P6064
P6074
P6094
P6096
P6076
P6066
P6091
P6071
P6061
P6052
P6082
P6054
P6084
P6086
P6056
P6081
P6051
Q6072
Q6074
Q6076
Q6071
D6002
D6004
D6006
D6001
JL6041B
JL6042B

ADJUSTMENT PROCEDURES-3

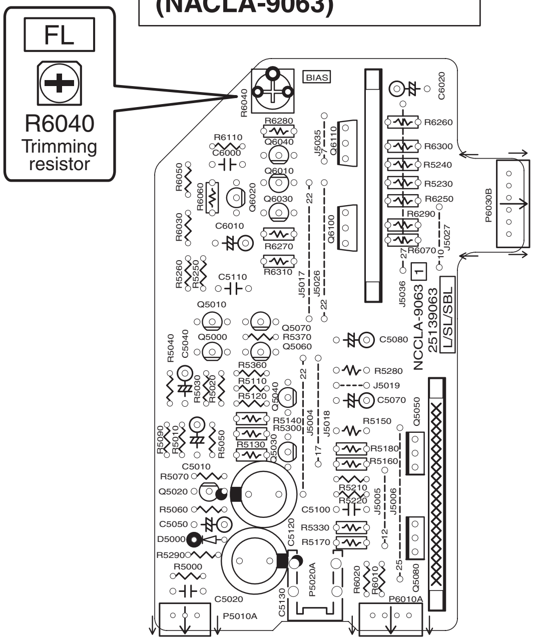
IDLING CURRENT ADJUSTMENT

NACLA-9063, 9066, 9068
are electrically and mechanically full-compatible with each other. But idling readjustment is necessary.

<Fig-2>

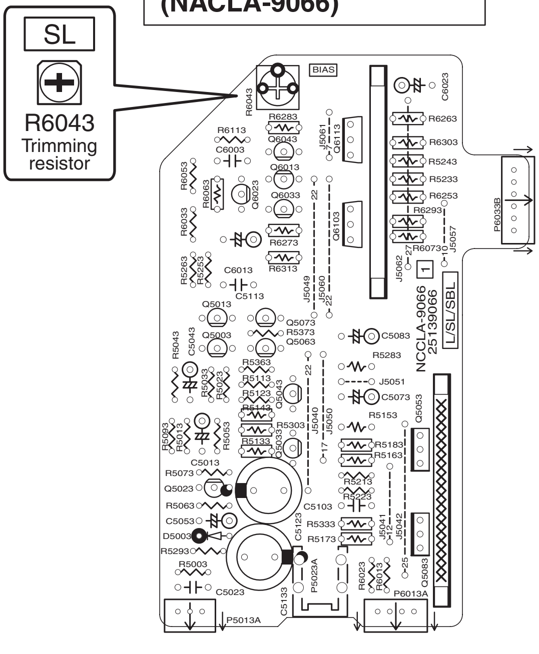
U18

POWER AMP PC BOARD (NACLA-9063)


FL
R6040
Trimming resistor
BIAS
R6040
NCCLA-9063
25139063
L/SL/SBL

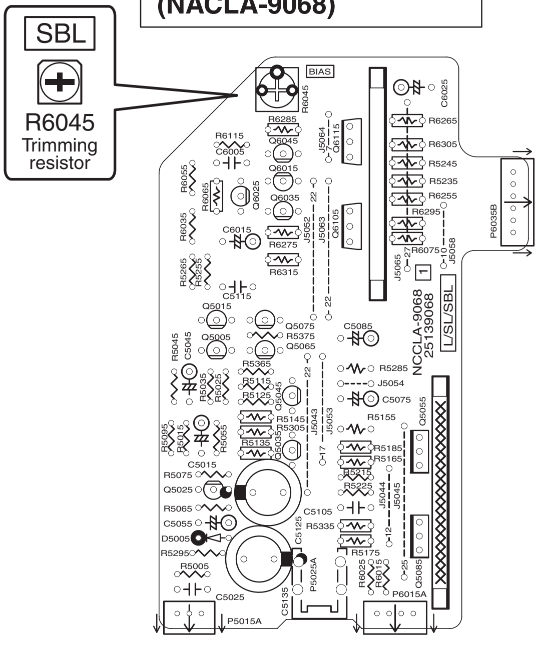
U21

POWER AMP PC BOARD (NACLA-9066)


SL
R6043
Trimming resistor
BIAS
R6043
NCCLA-9066
25139066
L/SL/SBL

U23

POWER AMP PC BOARD (NACLA-9068)


SBL
R6045
Trimming resistor
BIAS
R6045
NCCLA-9068
25139068
L/SL/SBL

ADJUSTMENT PROCEDURES-4

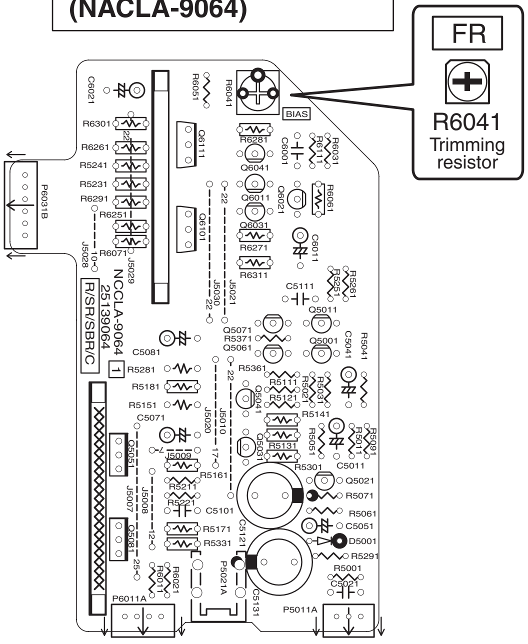
IDLING CURRENT ADJUSTMENT

NACLA-9064,9065, 9067, 9069 are electrically and mechanically full-compatible with each other. But idling readjustment is necessary.

<Fig-3>

U19

POWER AMP PC BOARD (NACLA-9064)


BIAS
NCCLA-9064
25139064
R/SR/SBR/C
P6031B
P6011A
P5011A
P5021A

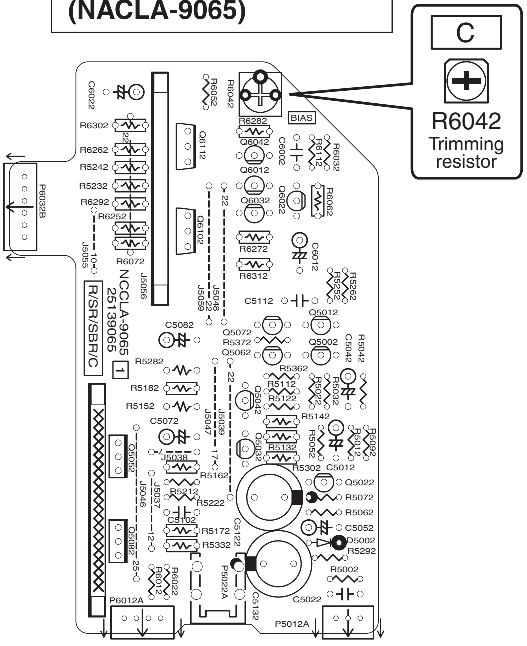
FR

R6041

Trimming resistor

U20

POWER AMP PC BOARD (NACLA-9065)


BIAS
NCCLA-9065
25139065
R/SR/SBR/C
P6032B
P6012A
P5012A
P5022A

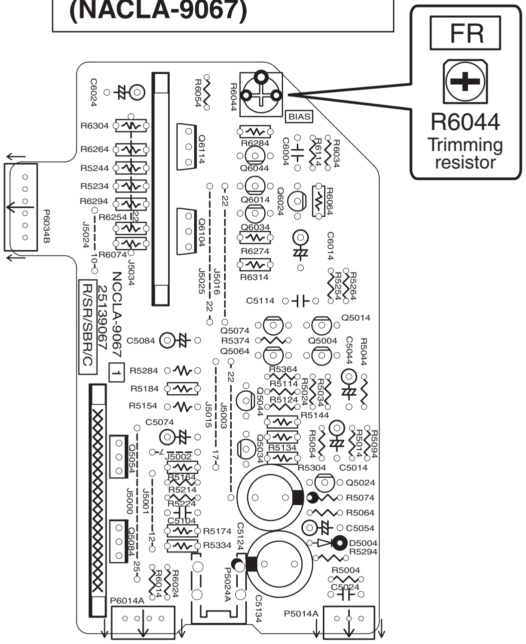
C

R6042

Trimming resistor

U22

POWER AMP PC BOARD (NACLA-9067)


BIAS
NCCLA-9067
25139067
R/SR/SBR/C
P6034B
P6014A
P5014A
P5024A

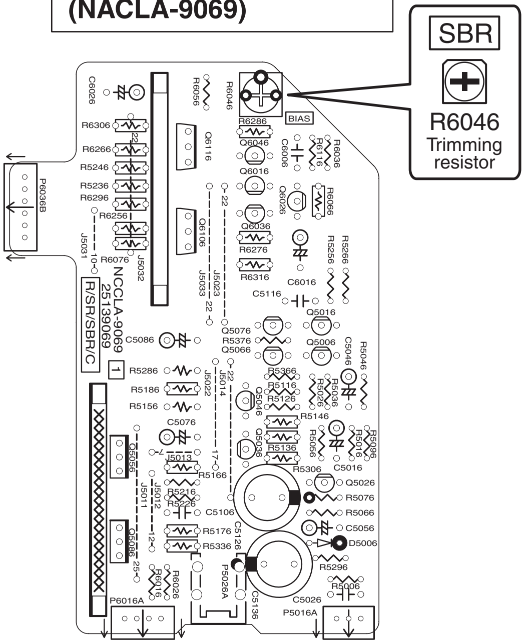
FR

R6044

Trimming resistor

U24

POWER AMP PC BOARD (NACLA-9069)


BIAS
NCCLA-9069
25139069
R/SR/SBR/C
P6036B
P6016A
P5016A
P5026A

SBR

R6046

Trimming resistor

ADJUSTMENT PROCEDURES-5

VIDEO PROCESSOR CALIBRATION

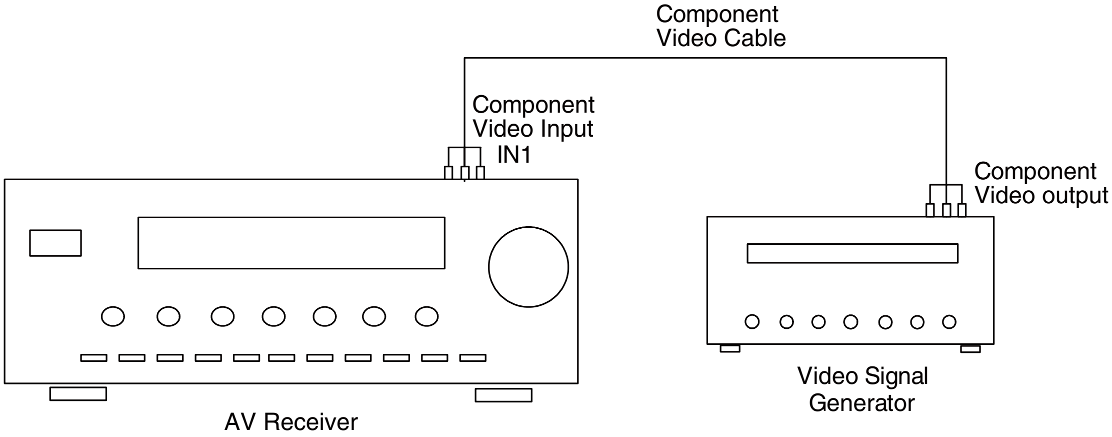
Video processor Q8001 must be calibrated before mounting on the unit.

[When]

1. Exchange Video processor IC (Q8001, FLI8125-LF-BC).
2. Exchange HDMI PC board ass'y (NAHDM-9107).

[Preparation]

1. Prepare a standard video signal generator(SG).
2. Set the SG to output 100% color bar of 8 colors and 480i at component video terminals.
3. Connect the unit(TX-SR805) and SG as shown in the figure.


Component
Video Cable
Component
Video Input
IN1
Component
Video output
AV Receiver
Video Signal
Generator

[Procedure]

1. Press and hold down CD button, then press STANDBY/ON button.
   " Test - _ " is displayed only for 5 seconds.
2. Press AUX button within 5 seconds above.
3. Calibration of ADC part of FLI8125-LF-BC starts and proceeds automatically.
4. The unit will be powered off automatically when finished.

<Note>

1.Parts marked by "**NSP**" are generally unavailable because they are not in our Master Spare Parts List.
2.ICs marked by "**NRP**" are not replaceable because some pins on bottom are unable to see and touch..

NOTE : THE COMPONENTS IDENTIFIED BY THE MAR
! ARE CRITICAL FOR RISK OF FIRE AND
ELECTRIC SHOCK. REPLACE ONLY WITH PART
NUMBER SPECIFIED.

<Notes>

(B) : TX-SR805 Black mode
(G) : TX-SR805 Golden model
(S) : TX-SR805 Silver mode
<SA805> : TX-SA805 Golden mode

[U]: Made in Japan
[M]: Made in Malaysi

<DC> : TX-SR805 USA and Canadian model
<DT> : TX-SR805 Asian model for 120
<MP> :TX-SR805 European model
<MA> : TX-SR805 Australian mode
<MT> : TX-SR805 Asian model for 220-240
<MQ> : TX-SR805 Hong Kong model
<MK> : TX-SR805 Korean model
<SA805> : TX-SA805 Chinese mode

EXPLODED VIEW PARTS LIST

REF. NO.	PART NAME	DESCRIPTION	Q'TY	PART NO. (SN)	REMARKS
A001	HEAT SINK	.	2	27160603A	[U]
A001	HEAT SINK	.	2	27160603B	[M]
A004	ISO PLT	(HS)	1	28175334	
A005	SPACER	(PC)	8	27270485	
A007	SCREW	3P+6FN(3BC)	8	82143006GR	
A009	SCREW	3SMS8W.SW+14B(CU)	28	801634	
A011	RETAINER	(HS-2)	2	27141530A	
A013	SCREW	3TTB+8B(3CM)SR	83	801637	
A014	SPACER	t0.5x8x3.2	1	27270438	
A015	CHASSIS	(SUB)	1	---	NSP
A018	CUSHION	(T3*W35*D10)	1	28141741	
A020	CUSHION	t10*10*100	1	28141746	
A021	BUTYL	3(5m)	1	WS3628	
A022	TAPE	TAPE(CLOTH-8U)	1	29110082	
A024	BUTYL	3(5m)	1	WS3628	
A025	HEAT SINK(S)	240	1	27160608	
A030	ISO PLT	(AMP2)	1	28175333	
A031	RIVET	P-RIVET NRP-345	2	880009	
A032	CUSHION	T5*8*8	2	28141742	
A033	ISO PLT	(AMP)	1	28175331A	
A038	ISO PLT	(FFC)	1	28175332	
A039	PLA RIVET	P3035B	2	880016	
A040	BRACKET	(FAN-L)	1	27131022A	
A042	HOLDER	(FAN)	4	27191307	
A044	BRACKET	(FAN-R)	1	27131023A	
A046	HOLDER	(FAN)	4	27191307	
A048	BRACKET	(MID)	1	27131021B	
A049	TAPE	TAPE(CLOTH-16U)	1	29110083	
A056	SCREW	4TTC+8C(3BC)	4	830440089GR	
A058	LABEL	(PT)	1	29363379-1	
A060	HOLDER	(EDGE)	2	27191309	
A062	CLAMP	(NAD-09)	1	24840176	
A064	BUSHING	BUSHING	1	28170040	
A066	CHASSIS	.	1	---	NSP
A067	BUTYL	3(5m)	1	WS3628	[U]
A067	CUSHON	(BUTYL)	1	28141748	[M]
A068	LEG	(AS)	4	27175438	
A070	CUSHION	.	8	28141637	
A075	HOLDER	KGLS-14RT	3	27190524	
A076	HOLDER	(SPD-6)	4	27191308	
A078	HOLDER	KGPS-10RF	3	27190813	
A079	BUTYL	3(5m)	1	WS3628	[U]
A079	CUSHON	(BUTYL)	1	28141748	[M]
A086	BRACKET	(F)	1	27131020A	
A087	TAPE	TAPE(CLOTH-16U)	1	29110083	
A089	TAPE	TAPE(CLOTH-8U)	1	29110082	
A090	HOLDER	SPM-4	5	27191154	
A092	HOLDER	KGLS-10RT	1	27190428A	
A094	HOLDER	KGLS-10S	2	27190896	
A096	HOLDER	KGPS-6RF	2	27191112	
A098	HOLDER	KGLS-12S	1	27190062	
A100	HOLDER	HOLDER KGLS-18S	1	27190470	
A104	HOLDER	KGLS-22S	1	27190369	
A105	HOLDER	KGLS-22RT	1	27190772	
A106	HOLDER	KGLS-12RT	1	27190266	
A110	REAR PANEL	.	1	27123691A	[U], <DC>
A110	REAR PANEL	.	1	27123771	[M], <DC>
A110	REAR PANEL	TXSR805MP	1	27123698B	[U], <MP>
A110	REAR PANEL	TXSR805MP	1	27123776	[M], <MP>
A110	REAR PANEL	TXSR805DT	1	27123699A	[U], <DT>
A110	REAR PANEL	TXSR805DT	1	27123841	[M], <DT>
A110	REAR PANEL	TXSA805MR	1	27123700A	[U], SA805
A110	REAR PANEL	TXSA805MR	1	27123842	[M], SA805
A110	REAR PANEL	TXSR805MQ	1	27123702A	[U], <MK, MQ, MT
A110	REAR PANEL	TXSR805MQ	1	27123843	[M], <MK, MQ, MT
A110	REAR PANEL	TXSR805MA	1	27123703A	[U], <MA>
A110	REAR PANEL	TXSR805MA	1	27123844	[M], <MA>
A112	SCREW	3TTB+8B(3BC)	76	838430088GR	<DC>
A112	SCREW	3TTB+8B(3BC)	73	838430088GR	<DT, MA, MK, MQ
A112	SCREW	3TTB+8B(3BC)	74	838430088GR	<MP>
A112	SCREW	3TTB+8B(3BC)	70	838430088GR	<SA805>
A113	SCREW	3P+6FN(3BC)	1	82143006GR	<DC>
A114	SCREW	4TTB+8C(3BC)	2	838440089GR	
A116	WASHER	W3*10F(3BC)	1	87643010GR	

A118	TRM		1	25060151	
A119	TAPE	TAPE(CLOTH-8U)	1	29110082	
A120	WIRE TIE	BSK-1	15	260208	
A134	RETAINER	(SIDE)	2	27142079	
A137	CUSHION	t5*30*5	2	28141562	
A139	BUTYL	3(5m)	1	WS3628	[U]
A139	CUSHION	(BUTYL)	1	28141748	[M]
A160	TAPE	TAPE(CLOTH-8U)	1	29110082	
A201	BADGE	.	1	28135298	(S)
A201	BADGE	BADGE	1	28135244	(B)
A201	BADGE	BADGE	1	28135245	(G)
A201	BADGE	BADGE	1	28135245	<SA805>
A205	HOLDER	(L)(B)	1	27191294	(B)
A205	HOLDER	(L)(S)	1	27191295	(S)
A205	HOLDER	(L)(G)	1	27191296	(G)
A205	HOLDER	(L)(G)	1	27191296	<SA805>
A207	HOLDER	(R)(B)	1	27191297A	(B)
A207	HOLDER	(R)(S)	1	27191298A	(S)
A207	HOLDER	(R)(G)	1	27191299A	(G)
A207	HOLDER	(R)(G)	1	27191299A	<SA805>
A209	HINGE	(L)(B)	1	28180184B	(B)
A209	HINGE	(L)(S)	1	28180185B	(S)
A209	HINGE	(L)(G)	1	28180186B	(G)
A209	HINGE	(L)(G)	1	28180186B	<SA805>
A211	HINGE	(R)(B)	1	28180187B	(B)
A211	HINGE	(R)(S)	1	28180188B	(S)
A211	HINGE	(R)(G)	1	28180189B	(G)
A211	HINGE	(R)(G)	1	28180189B	<SA805>
A213	RETAINER	(DOOR)	1	27142060A	
A215	RETAINER	(HOLDER)	1	27142061	
A217	PUSH LATCH	091Y	1	27230047	
A219	DAMPER	29T0-F	1	27301960	
A221	GEAR	.	1	27301946A	
A223	SCREW	2TTB+8B(3CM)	1	838120088GR	
A239	CUSHION	t1.0*5*5	1	28141511	
A251	F BRACKET	(B)	1	27111477B	(B)
A251	F BRACKET	.(S)	1	27111484B	(S)
A251	F BRACKET	.(G)	1	27111485B	(G)
A251	F BRACKET	.(G)	1	27111485B	<SA805>
A252	TAPE	Scotch #810W12	1	29110181	
A253	KNOB	(PA)AS	1	28326530A	(B)
A253	KNOB	(PA)AS	1	28326533A	(S)
A253	KNOB	(PA)AS	1	28326534A	(G)
A253	KNOB	(PA)AS	1	28326534A	<SA805>
A255	FACET	(VOL)	1	28200023A	
A259	B PLATE	.(B)	1	28133428	(B)
A259	B PLATE	.(S)	1	28133429	(S), (G), <SA805>
A261	RETAINER	(PWB)	1	27142064	
A262	CUSHON	(T10*A40*B10)	2	28141747	
A270	CUSHION	t5*30*5	2	28141562	
A271	TAPE	TAPE(CLOTH-8U)	1	29110082	
A281	KNOB	(VOL)AS(B)	1	28326557	(B)
A281	KNOB	(VOL)AS(S)	1	28326558	(S)
A281	KNOB	(VOL)AS(G)	1	28326559	(G)
A281	KNOB	(VOL)AS(G)	1	28326559	<SA805>
A285	CUSHION	.	3	28141637	
A301	F PANEL	.805(B)	1	27212991A	(B)
A301	F PANEL	.805(S)	1	27212993	(S)
A301	F PANEL	.805(G)	1	27212994	(G)
A301	F PANEL	.805(G)	1	27212994	<SA805>
A303	CLEAR PLT	.805BD	1	28192146B	(B), <DC>
A303	CLEAR PLT	.805BP	1	28192133A	(B), <MP>
A303	CLEAR PLT	.805BP	1	28192133A	(B), <MA>
A303	CLEAR PLT	.805SD	1	28192147A	(S), <DC>
A303	CLEAR PLT	.805SP	1	28192137A	(S), <MP,MA>
A303	CLEAR PLT	.805SP	1	28192137A	(G), <DT, MK, MQ,
A303	CLEAR PLT	.805SP	1	28192137A	<SA805>
A311	DOOR	.805BC	1	28148672B	(B), <DC>
A311	DOOR	.805BP	1	28148674A	(B), <MA, MP>
A311	DOOR	.805SC	1	28148673A	(S), <DC>
A311	DOOR	.805SP	1	28148675A	(S), <MP, MA>
A311	DOOR	.805GT	1	28148676A	(G), <DT, MK, MQ,
A311	DOOR	.805GR	1	28148677A	<SA805>
A313	PLATE	(DOOR)805BD	1	27262783	(B), <DC>
A313	PLATE	(DOOR)805BP	1	27262787	(B), <MA, MP>
A313	PLATE	(DOOR)805SD	1	27262784A	(S), <DC>
A313	PLATE	(DOOR)805SP	1	27262788A	(S), <MP, MA>
A313	PLATE	(DOOR)805GP	1	27262789A	(G), <DT, MK, MQ,
A313	PLATE	(DOOR)805GR	1	27262785A	<SA805>
A315	KNOB	(POW) (B)	1	28326454	(B), <MA, MP>
A315	KNOB	(POW)(S)	1	28326585	(S), <MP, MA>
A315	KNOB	(POW)(G)	1	28326586	(G), <DT, MK, MQ,
A315	KNOB	(POW)(G)	1	28326586	<SA805>
A321	SCREW	3P+10FN(3BC)	2	82143010GR	<MP, MA, DT, MK,
A400	COVER	(B)	1	28184989A	(B)
A400	COVER	(S)	1	28184990A	(S)
A400	COVER	(G)	1	28184991A	(G)
A400	COVER	(G)	1	28184991A	<SA805>
A402	ST SCREW	4TTB+8C(NI)	6	838240089	(S), (G), <SA805>
A404	SCREW	4TTB+8C(3BC)	6	838440089GR	(B)
A406	SCREW	3TTB+8B(3CM)SR	3	801637	(S), (G), <SA805>
A410	LABEL	(CAUTION)	1	29363796	(B)
A410	LABEL	(CAUTION)	1	29363797	(S)
A410	LABEL	(CAUTION)	1	29363798	(G)
A410	LABEL	(CAUTION)	1	29363798	<SA805>
A411	LABEL	HOOKUP-ONKYC	1	29363194	<DC>
A412	TAPE	TAPE(CLOTH-8U)	1	29110082	
A416	LABEL	(30)	1	29364995	<SA805>
F2501	FUSE	4A-UL/T-233	1	252325GR	!
F2501 or	FUSE	4A-T/UL-ST2	(1)	252257GR	!

F2502	FUSE	4A-UL/T-233	1	252325GR	!
F2502 or	FUSE	4A-T/UL-ST2	(1)	252257GR	!
F6601	FUSE	20A-UL-250V	1	252304GR	!
F6602	FUSE	20A-UL-250V	1	252304GR	!
F6603	FUSE	20A-UL-250V	1	252304GR	!
F6604	FUSE	20A-UL-250V	1	252304GR	!
F9000	FUSE	5A-UL/T-233	1	252326GR	!, <DC>
F9000 or	FUSE	5A-T/UL-ST2	(1)	252258GR	!, <DC>
F9000	FUSE	2.5A-SE-EAK FUSE	1	252075GR	!, <MP>
F9000 or	FUSE	2.5A-SE-TL250V	(1)	252275GR	!, <MP>
F9100	FUSE	12A-UL-ST6	1	252340GR	!, <DC,DT>
F9100	FUSE	6.3A-SE-EAK FUSE	1	252079GR	!, <MA, MP, MK, M
F9100 or	FUSE	6.3A-SE-TL250V	(1)	252279GR	!, <MA, MP, MK, M
F9101	FUSE	4A-UL/T-233	1	252325GR	!
F9101 or	FUSE	4A-T/UL-ST2	(1)	252257GR	!
F9102	FUSE	4A-UL/T-233	1	252325GR	!
F9102 or	FUSE	4A-T/UL-ST2	(1)	252257GR	!
F9301	FUSE	4A-UL/T-233	1	252325GR	!
F9301 or	FUSE	4A-T/UL-ST2	(1)	252257GR	!
P061	FAN	D09A-12TG08(EX)	1	24502319	
P062	FAN	D09A-12TG08(EX)	1	24502319	
P101	FFC	NCFC7-132012	1	2047132012	<DC, MA, MP, DT,
P102	FFC	NCFC7-181012	1	2047181012	<DC>
P2801	FFC	NCFC7-231012	1	2047231012	
P680	P RIVET	JB-407A-C	18	880052	
P7501	FFC	NCFC7-405522	1	2047405522	
P9008	SOCKET AS	NSAS-6P1675	1	2009991073UL	<DT, MP, MA, MK,
Q6050	TR	2SC5242-O	1	2202843	
Q6050 or	TR	2SC5242-R	(1)	2202842	
Q6050A	ISO SHEET	ISO SHEET(SR805 3CH)	2	223047	
Q6051	TR	2SC5242-O	1	2202843	
Q6051 or	TR	2SC5242-R	(1)	2202842	
Q6052	TR	2SC5242-O	1	2202843	
Q6052 or	TR	2SC5242-R	(1)	2202842	
Q6053	TR	2SC5242-O	1	2202843	
Q6053 or	TR	2SC5242-R	(1)	2202842	
Q6054	TR	2SC5242-O	1	2202843	
Q6054 or	TR	2SC5242-R	(1)	2202842	
Q6055	TR	2SC5242-O	1	2202843	
Q6055 or	TR	2SC5242-R	(1)	2202842	
Q6056	TR	2SC5242-O	1	2202843	
Q6056 or	TR	2SC5242-R	(1)	2202842	
Q6060	TR	2SA1962-O	1	2202833	
Q6060 or	TR	2SA1962-R	(1)	2202832	
Q6061	TR	2SA1962-O	1	2202833	
Q6061 or	TR	2SA1962-R	(1)	2202832	
Q6062	TR	2SA1962-O	1	2202833	
Q6062 or	TR	2SA1962-R	(1)	2202832	
Q6063	TR	2SA1962-O	1	2202833	
Q6063 or	TR	2SA1962-R	(1)	2202832	
Q6064	TR	2SA1962-O	1	2202833	
Q6064 or	TR	2SA1962-R	(1)	2202832	
Q6065	TR	2SA1962-O	1	2202833	
Q6065 or	TR	2SA1962-R	(1)	2202832	
Q6066	TR	2SA1962-O	1	2202833	
Q6066 or	TR	2SA1962-R	(1)	2202832	
Q6080	TR	2SC5242-O	1	2202843	
Q6080 or	TR	2SC5242-R	(1)	2202842	
Q6080A	ISO SHEET	ISO SHEET(SR805 4CH)	2	223048	
Q6081	TR	2SC5242-O	1	2202843	
Q6081 or	TR	2SC5242-R	(1)	2202842	
Q6082	TR	2SC5242-O	1	2202843	
Q6082 or	TR	2SC5242-R	(1)	2202842	
Q6083	TR	2SC5242-O	1	2202843	
Q6083 or	TR	2SC5242-R	(1)	2202842	
Q6084	TR	2SC5242-O	1	2202843	
Q6084 or	TR	2SC5242-R	(1)	2202842	
Q6085	TR	2SC5242-O	1	2202843	
Q6085 or	TR	2SC5242-R	(1)	2202842	
Q6086	TR	2SC5242-O	1	2202843	
Q6086 or	TR	2SC5242-R	(1)	2202842	
Q6090	TR	2SA1962-O	1	2202833	
Q6090 or	TR	2SA1962-R	(1)	2202832	
Q6091	TR	2SA1962-O	1	2202833	
Q6091 or	TR	2SA1962-R	(1)	2202832	
Q6092	TR	2SA1962-O	1	2202833	
Q6092 or	TR	2SA1962-R	(1)	2202832	
Q6093	TR	2SA1962-O	1	2202833	
Q6093 or	TR	2SA1962-R	(1)	2202832	
Q6094	TR	2SA1962-O	1	2202833	
Q6094 or	TR	2SA1962-R	(1)	2202832	
Q6095	TR	2SA1962-O	1	2202833	
Q6095 or	TR	2SA1962-R	(1)	2202832	
Q6096	TR	2SA1962-O	1	2202833	
Q6096 or	TR	2SA1962-R	(1)	2202832	

<Notes>

When replacing the following the transistors, use ones of the same Hfe rank as the original type.

Ref. No. : Q6050 - 6060, Q6051 - 6061, Q6052 - 6062, Q6053 - 6063, Q6054 - 6064, Q6055 - 6065, Q6056 - 6066

T901	P TRANS	NPT-1553D	1	2301893	!, <DC, DT>
T901	P TRANS	NPT-1553M	1	2301894	!, <MP, MA, MK, M
U01	**AMPLIFIER PC board ass'y**	NAAF-9039-1A	1	1B170539-1A	<DC>
		NAAF-9039-1B	1	1B170539-1B	<MA, MP, DT, MK,
U02	POWER SUPPLY PC board ass'y	NAPS-9040-1A	1	1B170540-1A	<DC>
		NAPS-9040-1B	1	1B170540-1B	<MA, MP, DT, MK,
U03	POWER SUPPLY PC board ass'y	NAPS-9041-1A	1	1B170541-1A	<DC>
		NAPS-9041-1B	1	1B170541-1B	<MA, MP, DT, MK,
U04	THERMAL SENSOR PC board ass'y	NAETC-9042-1A	1	1B170542-1A	<DC>
		NAETC-9042-1B	1	1B170542-1B	<MA, MP, DT, MK,
U05	THERMAL SENSOR PC board ass'y	NAETC-9043-1A	1	1B170543-1A	<DC>
		NAETC-9043-1B	1	1B170543-1B	<MA, MP, DT, MK,

U06	**AMPLIFIER PC board ass'y**	NAASP-9050-1A	1	1B170550-1A	<DC, MA, MP, DT,
		NAASP-9050-1L	1	1B170550-1L	<SA805>
U07	PHONO PC board ass'y	NAASP-9051-1A	1	1B170551-1A	<DC, MA, MP, DT,
		NAASP-9051-1L	1	1B170551-1L	<SA805>
U08	VIDEO PC board ass'y	NAVD-9052-1A	1	1B170552-1A	<DC, MA, MP, DT,
		NAVD-9052-1L	1	1B170552-1L	<SA805>
U09	CONNECTOR PC board ass'y	NAETC-9053-1A	1	1B170553-1A	<DC, MA, MP, DT,
		NAETC-9053-1L	1	1B170553-1L	<SA805>
U10	CONNECTOR PC board ass'y	NAETC-9054-1A	1	1B170554-1A	<DC, MA, MP, DT,
		NAETC-9054-1L	1	1B170554-1L	<SA805>
U11	**SP TERMINAL PC board ass'y**	NATRM-9055-1A	1	1B170555-1A	<DC>
		NATRM-9055-1B	1	1B170555-1B	<MP,>
		NATRM-9055-1C	1	1B170555-1C	<MA, MK, MQ, MT
		NATRM-9055-1D	1	1B170555-1D	<DT>
		NATRM-9055-1X	1	1B170555-1X	<SA805>
U12	SP TERMINAL PC board ass'y	NAETC-9056-1A	1	1B170556-1A	<DC>
		NAETC-9056-1B	1	1B170556-1B	<MP,>
		NAETC-9056-1C	1	1B170556-1C	<MA, MK, MQ, MT
		NAETC-9056-1D	1	1B170556-1D	<DT>
		NAETC-9056-1X	1	1B170556-1X	<SA805>
U13	POWER SUPPLY PC board ass'y	NAPS-9057-1A	1	1B170557-1A	<DC>
		NAPS-9057-1B	1	1B170557-1B	<MP,>
		NAPS-9057-1C	1	1B170557-1C	<MA, MK, MQ, MT
		NAPS-9057-1D	1	1B170557-1D	<DT>
		NAPS-9057-1X	1	1B170557-1X	<SA805>
U14	INLET PC board ass'y	NAPS-9058-1A	1	1B170558-1A	<DC>
		NAPS-9058-1B	1	1B170558-1B	<MP,>
		NAPS-9058-1C	1	1B170558-1C	<MA, MK, MQ, MT
		NAPS-9058-1D	1	1B170558-1D	<DT>
		NAPS-9058-1X	1	1B170558-1X	<SA805>
U16	**POWER AMP PC board ass'y**	NAAMP-9061-1A	1	1B170561-1A	<DC>
		NAAMP-9061-1B	1	1B170561-1B	<MA, MP, DT, MK,
U17	POWER AMP PC board ass'y	NAAMP-9062-1A	1	1B170562-1A	<DC>
		NAAMP-9062-1B	1	1B170562-1B	<MA, MP, DT, MK,
U18	POWER AMP PC board ass'y	NACLA-9063-1A	1	1B170563-1A	<DC>
		NACLA-9063-1B	1	1B170563-1B	<MA, MP, DT, MK,
U19	POWER AMP PC board ass'y	NACLA-9064-1A	1	1B170564-1A	<DC>
		NACLA-9064-1B	1	1B170564-1B	<MA, MP, DT, MK,
U20	POWER AMP PC board ass'y	NACLA-9065-1A	1	1B170564-1A	<DC>
		NACLA-9065-1B	1	1B170564-1B	<MA, MP, DT, MK,
U21	POWER AMP PC board ass'y	NACLA-9066-1A	1	1B170563-1A	<DC>
		NACLA-9066-1B	1	1B170563-1B	<MA, MP, DT, MK,
U22	POWER AMP PC board ass'y	NACLA-9067-1A	1	1B170564-1A	<DC>
		NACLA-9067-1B	1	1B170564-1B	<MA, MP, DT, MK,
U23	POWER AMP PC board ass'y	NACLA-9068-1A	1	1B170563-1A	<DC>
		NACLA-9068-1B	1	1B170563-1B	<MA, MP, DT, MK,
U24	POWER AMP PC board ass'y	NACLA-9069-1A	1	1B170564-1A	<DC>
		NACLA-9069-1B	1	1B170564-1B	<MA, MP, DT, MK,
U25	**DSP PC board ass'y**	NADSP-9072-1A	1	1B170572-1A	
U27	**DAC PC board ass'y**	NADG-9074-1A	1	1B170574-1A	<DC>
		NADG-9074-1B	1	1B170574-1B	<MA, MP, DT, MK,
		NADG-9074-1C	1	1B170574-1C	<SA805>
U28	MICROPROCESSOR PC board ass'y	NAAR-9075-1A	1	1B170575-1A	<DC>
		NAAR-9075-1B	1	1B170575-1B	<MA, MP, DT, MK,
		NAAR-9075-1C	1	1B170575-1C	<SA805>
U30	XM PC board ass'y	NARF-9077-1A	1	1B170577-1A	<DC>
U31	HOLDER PC board ass'y	NAETC-9078-1A	1	1B170578-1A	<DC>
		NAETC-9078-1B	1	1B170578-1B	<MA, MP, DT, MK,
		NAETC-9078-1C	1	1B170578-1C	<SA805>
U32	AMPLIFIER PC board ass'y	NAASP-9080-1A	1	1B170580-1A	<DC>
		NAASP-9080-1B	1	1B170580-1B	<MA, MP, DT, MK,
		NAASP-9080-1C	1	1B170580-1C	<SA805>
U26	AMPLIFIER PC board ass'y	NAETC-9073-1A	1	1B170573-1A	<DC>
		NAETC-9073-1B	1	1B170573-1B	<MA, MP, DT, MK,
		NAETC-9073-1C	1	1B170573-1C	<SA805>
U33	**DISPLAY PC board ass'y**	NADIS-9085-1A	1	1B170585-1A	<DC>
		NADIS-9085-1B	1	1B170585-1B	<MA, MP, DT, MK,
U34	DISPLAY PC board ass'y	NADIS-9086-1A	1	1B170586-1A	<DC>
		NADIS-9086-1B	1	1B170586-1B	<MA, MP, DT, MK,
U35	SWITCH PC board ass'y	NASW-9087-1A	1	1B170587-1A	<DC>
		NASW-9087-1B	1	1B170587-1B	<MA, MP, DT, MK,
U36	HEADPHONE PC board ass'y	NAETC-9088-1A	1	1B170588-1A	<DC>
		NAETC-9088-1B	1	1B170588-1B	<MA, MP, DT, MK,
U37	POWER SUPPLY PC board ass'y	NAPS-9089-1A	1	1B170589-1A	<DC>
		NAPS-9089-1B	1	1B170589-1B	<MA, MP, DT, MK,
U38	FRONT OPT PC board ass'y	NAETC-9090-1A	1	1B170590-1A	<DC>
		NAETC-9090-1B	1	1B170590-1B	<MA, MP, DT, MK,
U39	VOLUME PC board ass'y	NAETC-9091-1A	1	1B170591-1A	<DC>
		NAETC-9091-1B	1	1B170591-1B	<MA, MP, DT, MK,
U40	HOLDER PC board ass'y	NAETC-9092-1A	1	------	NSP
		NAETC-9092-1B	1	------	NSP
U41	HOLDER PC board ass'y	NAETC-9093-1A	1	------	NSP
		NAETC-9093-1B	1	------	NSP
U42	**HDMI PC board ass'y**	NAHDM-9107-1A	1	1B170507-1A	
U017	TUNER UNIT	ENG06507QFUS	1	240156	<DC>
U017 or	TUNER UNIT	FAE385-A11US	(1)	240152	<DC>
U017	TUNER UNIT	FAE485-E11EU	1	240154	<MP, MA, DT, MK,

PC BOARD PARTS LIST

U01	**AMPLIFIER PC BOARD (NAAF-9039-1A/1B)**
U02	**POWER SUPPLY PC BOARD (NAPS-9040-1A/1B)**
U03	**POWER SUPPLY PC BOARD (NAPS-9041-1A/1B)**
U04	**THERMAL SENSOR PC BORD (NAETC-9042-1A/1B)**
U05	**THERMAL SENSOR PC BORD (NAETC-9043-1A/1B)**

REF. NO.	PART NAME	DESCRIPTION	Q'TY	PART NO. (SN)	REMARKS
Q6000	TR	2SC1740S-S	1	2213285T	
Q6001	TR	2SC1740S-S	1	2213285T	
Q6002	TR	2SC1740S-S	1	2213285T	
Q6003	TR	2SC1740S-S	1	2213285T	
Q6004	TR	2SC1740S-S	1	2213285T	
Q6005	TR	2SC1740S-S	1	2213285T	
Q6006	TR	2SC1740S-S	1	2213285T	
Q6226	TR	2SB1068-U-AZ	1	2212855T	
Q6380	IC	LM61CIZ	1	22242212	
Q6380A	RETAINER	(PTH)	1	27141884-1	
Q6381	IC	LM61CIZ	1	22242212	
Q6381A	RETAINER	(PTH)	1	27141884-1	
Q6550	TR	2SC1815-GR	1	2211255T	
Q6551	TR	2SA950-O	1	2211503T	
Q6551 or	TR	2SA950-Y	(1)	2211504T	
Q6560	TR	2SC1815-GR	1	2211255T	
Q6561	TR	2SA950-O	1	2211503T	
Q6561 or	TR	2SA950-Y	(1)	2211504T	
Q6601	TR	KTC3199-GR	1	2215864T	
Q6601 or	TR	2SC1740S-R	(1)	2213284T	
Q6601 or	TR	2SC1740S-S	(1)	2213285T	
Q6611	TR	KTC3199-GR	1	2215864T	
Q6611 or	TR	2SC1740S-R	(1)	2213284T	
Q6611 or	TR	2SC1740S-S	(1)	2213285T	
Q6701	TR	2SC1845-F	1	2211732T	
Q6701 or	TR	2SC1845-E	(1)	2211733T	
Q6701 or	TR	KTC3200-BL	(1)	2215896T	
Q6702	TR	2SC1845-F	1	2211732T	
Q6702 or	TR	2SC1845-E	(1)	2211733T	
Q6702 or	TR	KTC3200-BL	(1)	2215896T	
Q6703	TR	2SA992-F	1	2211792T	
Q6703 or	TR	2SA992-E	(1)	2211793T	
D6221	DIODE	1SS133	1	223163T	
D6222	DIODE	1SS133	1	223163T	
D6601	DIODE	LN25XB60	1	22380345	
D6602	DIODE	1SS133	1	223163T	
D6611	DIODE	LN25XB60	1	22380345	
D6612	DIODE	1SS133	1	223163T	
D6621	DIODE	LN25XB60	1	22380345	
D6701	DIODE	1SS133	1	223163T	
D6702	DIODE	1SS133	1	223163T	
D6703	ZENER D	MTZJ3.3B	1	224470332T	
D6704	ZENER D	MTZJ3.3B	1	224470332T	
C6030	TF C	ECQ-V100-473J	1	374734734T	
C6031	TF C	ECQ-V100-473J	1	374734734T	
C6032	TF C	ECQ-V100-473J	1	374734734T	
C6033	TF C	ECQ-V100-473J	1	374734734T	
C6034	TF C	ECQ-V100-473J	1	374734734T	
C6035	TF C	ECQ-V100-473J	1	374734734T	
C6036	TF C	ECQ-V100-473J	1	374734734T	
C6222	UTSP C	CE04W25V-220M(UTSP)	1	397552217T	
C6601	TF C	ECQ-B50V-102J	1	374721024T	
C6602	PLA C	ECQE250V-334J	1	3700083S	
C6611	TF C	ECQ-B50V-102J	1	374721024T	
C6612	TF C	ECQ-V100-334J	1	374733344T	
C6622	TF C	ECQ-V100-334J	1	374733344T	
C6701	UTSP C	CE04W10V-220M(UTSP)	1	397532217T	
C6703	TF C	ECQ-B50V-223J	1	374722234T	
C6704	UTSP C	CE04W50V-1M(UTSP)	1	397580107T	
C6706	UTSP C	CE04W50V-10M(UTSP)	1	397581007T	
C6901	ELECT C	CE69W71V-15000M(Pana-onk)	1	3504450	
C6902	ELECT C	CE69W71V-15000M(Pana-onk)	1	3504450	
R6130	METAL R	RNU1WCJ-8.2	1	453630824T	
R6131	METAL R	RNU1WCJ-8.2	1	453630824T	
R6132	METAL R	RNU1WCJ-8.2	1	453630824T	
R6133	METAL R	RNU1WCJ-8.2	1	453630824T	
R6134	METAL R	RNU1WCJ-8.2	1	453630824T	
R6135	METAL R	RNU1WCJ-8.2	1	453630824T	
R6136	METAL R	RNU1WCJ-8.2	1	453630824T	
R6222	METAL R	RNU1WCJ-1	1	453630104T	
R6223	CARBON R	R16J-5.6K	1	417345624T	
R6550	CARBON R	R16J-4.7K	1	417344724T	
R6551	CARBON R	R16J-330	1	417343314T	
R6552	CARBON R	R16J-1.8K	1	417341824T	
R6553	CARBON R	R16J-1.2K	1	417341224T	
R6554	CARBON R	R16J-22K	1	417342234T	
R6560	CARBON R	R16J-4.7K	1	417344724T	
R6561	CARBON R	R16J-330	1	417343314T	
R6562	CARBON R	R16J-1.8K	1	417341824T	
R6563	CARBON R	R16J-1.2K	1	417341224T	
R6564	CARBON R	R16J-22K	1	417342234T	
R6601	CARBON R	R16J-1K	1	417341024T	
R6602	CARBON R	R16J-4.7K	1	417344724T	
R6603	METAL R	RNU1/2WCJ-2.2	1	453530224T	
R6611	CARBON R	R16J-1K	1	417341024T	

R6612	CARBON R	R16J-4.7K	1	417344724T	
R6613	METAL R	RNU1/2WCJ-2.2	1	453530224T	
R6701	CARBON R	R16J-22K	1	417342234T	
R6702	CARBON R	R16J-10K	1	417341034T	
R6704	CARBON R	R16J-33K	1	417343334T	
R6706	CARBON R	R16J-22K	1	417342234T	
R6708	CARBON R	R16J-33K	1	417343334T	
R6709	CARBON R	R16J-5.6K	1	417345624T	
R6710	CARBON R	R16J-15K	1	417341534T	
F6601A	FUSE HOLDER	SN5051	1	250113	
F6601B	FUSE HOLDER	SN5051	1	250113	
F6602A	FUSE HOLDER	SN5051	1	250113	
F6602B	FUSE HOLDER	SN5051	1	250113	
F6603A	FUSE HOLDER	SN5051	1	250113	
F6603B	FUSE HOLDER	SN5051	1	250113	
F6604A	FUSE HOLDER	SN5051	1	250113	
F6604B	FUSE HOLDER	SN5051	1	250113	
JL6041A	WIRE HOL	NSCT-3P874	1	25051087	
JL6402A	WIRE TRAP	NPLG-3P586	1	25055624	
JL6402B	WIRE HOL	NSCT-3P874	1	25051087	
JL6403A	WIRE TRAP	NPLG-3P586	1	25055624	
JL6403B	WIRE HOL	NSCT-3P874	1	25051087	
JL6602A	WIRE HOL	NSCT-4P875	1	25051088	
JL6602B	WIRE TRAP	NPLG-4P587	1	25055625	
JL6900A	WIRE HOL	NSCT-3P894	1	25051107	
P4100	SOCKET	9210B-1-08Z140-PT1	1	25053243	
P4101	SOCKET	9210B-1-08Z140-PT1	1	25053243	
P5000A	SOCKET AS	NSAS-26P1612	1	2009991020UL	
P5001A	CRIMP AS	CRIMP SR805_1	1	20799169UL	
P5010B	PLUG	NPLG-3P0958	1	25056008	
P5011B	PLUG	NPLG-3P0958	1	25056008	
P5012B	PLUG	NPLG-3P0958	1	25056008	
P5013B	PLUG	NPLG-3P0958	1	25056008	
P5014B	PLUG	NPLG-3P0958	1	25056008	
P5015B	PLUG	NPLG-3P0958	1	25056008	
P5016B	PLUG	NPLG-3P0958	1	25056008	
P5020B	TRM	NTM-1P232(M1700)	1	25060301	
P5021B	TRM	NTM-1P232(M1700)	1	25060301	
P5022B	TRM	NTM-1P232(M1700)	1	25060301	
P5023B	TRM	NTM-1P232(M1700)	1	25060301	
P5024B	TRM	NTM-1P232(M1700)	1	25060301	
P5025B	TRM	NTM-1P232(M1700)	1	25060301	
P5026B	TRM	NTM-1P232(M1700)	1	25060301	
P6010B	PLUG	NPLG-4P0959	1	25056009	
P6011B	PLUG	NPLG-4P0959	1	25056009	
P6012B	PLUG	NPLG-4P0959	1	25056009	
P6013B	PLUG	NPLG-4P0959	1	25056009	
P6014B	PLUG	NPLG-4P0959	1	25056009	
P6015B	PLUG	NPLG-4P0959	1	25056009	
P6016B	PLUG	NPLG-4P0959	1	25056009	
P6140	SOCKET AS	NSAS-7P1659	1	2009991063AUL	
P6202	HOLDER	HOLDER(CLAMP)	1	27190540-1	
P6203	HOLDER	HOLDER(CLAMP)	1	27190540-1	
P6340	SOCKET AS	NSAS-8P1660	1	2009991064AUL	
P6400	RETAINER	(BUS-3)	1	27142058A	
P6401	RETAINER	(BUS-4)	1	27142059A	
P6500	PLUG	NPLG-7P163	1	25055179	
P6550	PLUG	NPLG-2P83	1	25055099	
P6560	PLUG	NPLG-2P83	1	25055099	
P6601	SOCKET AS	NSAS-7P1673	1	2009991071AUL	
P6601A	PLUG	NPLG-7P163	1	25055179	
P6602	TRM	NTM-1P243(M1699)	1	25060312	
P6602B	RETAINER	MET37-0002	1	27142009T	
P6603	TRM	NTM-1P243(M1699)	1	25060312	
P6603B	RETAINER	MET37-0002	1	27142009T	
P7210A	SOCKET AS	NSAS-18P1674	1	2009991072UL	
RL6601	RELAY	NRL-1P16A-DC12V-189	1	25065694	
RL6602	RELAY	NRL-1P16A-DC12V-189	1	25065694	
RL6611	RELAY	NRL-1P16A-DC12V-189	1	25065694	
RL6612	RELAY	NRL-1P16A-DC12V-189	1	25065694	

U06 **AMPLIFIER PC BOARD (NAASP-9050-1A/1L)**
U07 **PHONO PC BOARD (NAASP-9051-1A/1L)**
U08 **VIDEO PC BOARD (NAVD-9052-1A/1L)**
U09 **CONNECTOR PC BOARD (NAETC-9053-1A/1L)**
U10 **CONNECTOR PC BOARD (NAETC-9054-1A/1L)**

REF. NO.	PART NAME	DESCRIPTION	Q'TY	PART NO. (SN)	REMARKS
Q2001	TR	RN1444-A	1	2216031R2	
Q2001 or	TR	RN1444-B	(1)	2216032R2	
Q2002	TR	RN1444-A	1	2216031R2	
Q2002 or	TR	RN1444-B	(1)	2216032R2	
Q2003	TR	RN1444-A	1	2216031R2	
Q2003 or	TR	RN1444-B	(1)	2216032R2	
Q2006	IC	TC74HC4051AF(EL_F)	1	222740515R2	
Q2008	IC	TC74HC4051AF(EL_F)	1	222740515R2	

Q2010	IC	TC74HC4051AF(EL_F)	1	222740515R2	
Q2012	IC	NJM2587V	1	22242380R2	
Q2013	IC	NJM2587V	1	22242380R2	
Q2015	TR	RN1441	1	2215410R2	
Q2016	TR	RN1441	1	2215410R2	
Q2017	TR	RN1444-A	1	2216031R2	
Q2017 or	TR	RN1444-B	(1)	2216032R2	
Q2018	TR	RN1444-A	1	2216031R2	
Q2018 or	TR	RN1444-B	(1)	2216032R2	
Q2019	TR	RN1444-A	1	2216031R2	
Q2019 or	TR	RN1444-B	(1)	2216032R2	
Q2020	TR	RN1444-A	1	2216031R2	
Q2020 or	TR	RN1444-B	(1)	2216032R2	
Q2023	TR	KRA102S	1	2216220R2	
Q2023 or	TR	RN2402	(1)	2214530R2	
Q2024	TR	KTA1504-GR	1	2216185R2	
Q2024 or	TR	2SA1162-GR	(1)	2214375R2	
Q2027	IC	NJU7312AM	1	22242210R2	
Q2201	IC	NJW1321FP1	1	22242381R3	
Q2204	TR	2SK3019	1	2216520R2	
Q2205	TR	2SK3019	1	2216520R2	
Q2206	IC	NJM2586AM	1	22242420R2	
Q2501	IC	SI8008TM	1	22242323R2	
Q2502	TR	2SC2712-GR	1	2213145R2	
Q2503	TR	RN1402	1	2214470R2	
Q2504	IC	NJM2388F09	1	22242383	
Q2504A	SCREW	3P+10FN(3BC)	1	82143010GR	
Q2504B	HEAT SINK	RAD-196	1	27160545	
Q2505	IC	NJM2386ADL3-05	1	22242382R2	
Q2506	TR	RN2402	1	2214530R2	
Q2507	TR	2SD1468S-R	1	2215024T	
Q2509	IC	7905FA(NJM7905FA)	1	222790054JRC	
Q2509A	SCREW	3P+10FN(3BC)	1	82143010GR	
Q2511	TR	2SC2712-GR	1	2213145R2	
Q2512	TR	2SA1162-GR	1	2214375R2	
Q2605	TR	2SB1240-R	1	2213794T	
Q2605 or	TR	2SB1240-P	(1)	2213792T	
Q2605 or	TR	2SB1240-Q	(1)	2213793T	
Q2606	TR	KRC102S	1	2216190R2	
Q2606 or	TR	RN1402	(1)	2214470R2	
Q4001	IC	NE5532APSR	1	22242283R2	
Q4002	IC	NE5532APSR	1	22242283R2	
Q4011	IC	NE5532APSR	1	22242283R2	
Q4012	IC	NE5532APSR	1	22242283R2	
Q4013	IC	NE5532APSR	1	22242283R2	
Q4014	IC	NE5532APSR	1	22242283R2	
Q4015	IC	NE5532APSR	1	22242283R2	
Q4016	IC	NE5532APSR	1	22242283R2	<SA805>
Q4017	TR	2SC2240-BL(TPE2_F)	1	2211406T	
Q4018	TR	2SC2240-BL(TPE2_F)	1	2211406T	
Q4019	TR	2SC2240-BL(TPE2_F)	1	2211406T	
Q4020	TR	2SC2240-BL(TPE2_F)	1	2211406T	
Q4021	TR	2SC2712-GR	1	2213145R2	
Q4022	TR	2SC2712-GR	1	2213145R2	
Q4023	IC	NE5532APSR	1	22242283R2	
Q4025	TR	RN1441	1	2215410R2	<DC, DT, MA, MP,
Q4026	TR	RN1441	1	2215410R2	<DC, DT, MA, MP,
Q4029	IC	TC94A46CFG	1	22242414R3	
Q4029 or	IC	TC94A46FG	(1)	22242103R3	
Q4030	IC	NE5532APSR	1	22242283R2	
Q4031	IC	NE5532APSR	1	22242283R2	
Q4032	IC	NE5532APSR	1	22242283R2	
Q4040	IC	NE5532APSR	1	22242283R2	
Q4041	IC	NE5532APSR	1	22242283R2	
Q4042	IC	NE5532APSR	1	22242283R2	
Q4043	IC	NE5532APSR	1	22242283R2	
Q4205	TR	RN1441	1	2215410R2	
Q4206	TR	RN1441	1	2215410R2	
Q4207	TR	RN1441	1	2215410R2	
Q4208	TR	RN1441	1	2215410R2	
Q4209	TR	RN1441	1	2215410R2	
Q4210	TR	RN1441	1	2215410R2	
Q4211	TR	RN1441	1	2215410R2	
Q4212	TR	RN1441	1	2215410R2	
Q4301	IC	NE5532APSR	1	22242283R2	
Q4302	IC	NE5532APSR	1	22242283R2	
Q4303	IC	NE5532APSR	1	22242283R2	
Q4304	IC	NJU7312AM	1	22242210R2	
Q4305	IC	NJU7313AM	1	22242211R2	
Q4306	IC	NJU7311AM	1	22242209R2	
Q4401	TR	2SA950-Y	1	2211504T	
Q4402	TR	2SC2120-Y	1	2211164T	
Q4403	TR	2SC2712-GR	1	2213145R2	
Q4404	TR	2SA1162-GR	1	2214375R2	
Q4405	IC	CS3318-CQZR	1	22242404R2	
Q4406	IC	NE5532APSR	1	22242283R2	

Q4407	TR	2SC2712-GR	1	2213145R2
Q4408	TR	2SC2712-GR	1	2213145R2
Q4501	TR	2SC2235-Y(TPE6_F)	1	2211654T
Q4502	TR	2SC2235-Y(TPE6_F)	1	2211654T
Q4503	TR	2SA965-Y(TPE6_F)	1	2211644T
Q4504	TR	2SA965-Y(TPE6_F)	1	2211644T
Q4505	IC	NE5532APSR	1	22242283R2
Q4506	TR	2SC2712-GR	1	2213145R2
Q4610	TR	RN1441	1	2215410R2
Q4611	TR	RN1441	1	2215410R2
Q4612	TR	RN1441	1	2215410R2
Q4613	TR	RN1441	1	2215410R2
Q4614	TR	RN1441	1	2215410R2
Q4615	TR	RN1441	1	2215410R2
Q4616	TR	RN1441	1	2215410R2
Q4617	TR	RN1441	1	2215410R2
Q4620	TR	RN1441	1	2215410R2
Q4621	TR	RN1441	1	2215410R2
Q4622	TR	RN1441	1	2215410R2
Q4623	TR	RN1441	1	2215410R2
Q4624	TR	RN1441	1	2215410R2
Q4625	TR	RN1441	1	2215410R2
Q4626	TR	RN1441	1	2215410R2
Q4627	TR	RN1441	1	2215410R2
D2003	C-DIODE	1SS352	1	223234R2
D2003 or	C-DIODE	1SS355	(1)	223269R2
D2004	C-DIODE	1SS352	1	223234R2
D2004 or	C-DIODE	1SS355	(1)	223269R2
D2203	ZENER D	UDZ3.3B	1	224490330R2
D2501	C-DIODE	CRS09(TE85L_Q)	1	223274R2
D2502	C-DIODE	1SS352	1	223234R2
D2502 or	C-DIODE	1SS355	(1)	223269R2
D2503	C-DIODE	1SS352	1	223234R2
D2503 or	C-DIODE	1SS355	(1)	223269R2
D2504	C-DIODE	1SS352	1	223234R2
D2504 or	C-DIODE	1SS355	(1)	223269R2
D2505	C-DIODE	1SS352	1	223234R2
D2505 or	C-DIODE	1SS355	(1)	223269R2
D2506	ZENER D	UDZS10B	1	224551000R2
D2507	ZENER D	UDZS10B	1	224551000R2
D2508	C-DIODE	1SS352	1	223234R2
D2508 or	C-DIODE	1SS355	(1)	223269R2
D2509	C-DIODE	1SS352	1	223234R2
D2509 or	C-DIODE	1SS355	(1)	223269R2
D2510	DIODE	D10XB60H	1	22380337F
D2511	DIODE	RL1N4003	1	22380260T
D2512	C-DIODE	1SS352	1	223234R2
D2512 or	C-DIODE	1SS355	(1)	223269R2
D2513	C-DIODE	1SS352	1	223234R2
D2513 or	C-DIODE	1SS355	(1)	223269R2
D2605	C-DIODE	1SS352	1	223234R2
D2605 or	C-DIODE	1SS355	(1)	223269R2
D2606	C-DIODE	1SS352	1	223234R2
D2606 or	C-DIODE	1SS355	(1)	223269R2
D2607	DIODE	RL1N4003	1	22380260T
D4001	ZENER D	UDZS5.6B	1	224550560R2
D4002	ZENER D	UDZS5.6B	1	224550560R2
D4401	ZENER D	UDZS9.1B	1	224550910R2
D4402	ZENER D	UDZS9.1B	1	224550910R2
D4403	ZENER D	UDZ3.3B	1	224490330R2
D4404	C-DIODE	1SS352	1	223234R2
D4404 or	C-DIODE	1SS355	(1)	223269R2
D4405	C-DIODE	1SS352	1	223234R2
D4405 or	C-DIODE	1SS355	(1)	223269R2
D4501	C-DIODE	1SS352	1	223234R2
D4501 or	C-DIODE	1SS355	(1)	223269R2
D4502	C-DIODE	1SS352	1	223234R2
D4502 or	C-DIODE	1SS355	(1)	223269R2
D4503	C-DIODE	1SS352	1	223234R2
D4503 or	C-DIODE	1SS355	(1)	223269R2
D4504	C-DIODE	1SS352	1	223234R2
D4504 or	C-DIODE	1SS355	(1)	223269R2
D4505	C-DIODE	1SS352	1	223234R2
D4505 or	C-DIODE	1SS355	(1)	223269R2
D4506	C-DIODE	1SS352	1	223234R2
D4506 or	C-DIODE	1SS355	(1)	223269R2
D4507	C-DIODE	1SS352	1	223234R2
D4507 or	C-DIODE	1SS355	(1)	223269R2
D4508	C-DIODE	1SS352	1	223234R2
D4508 or	C-DIODE	1SS355	(1)	223269R2
D4509	C-DIODE	1SS352	1	223234R2
D4509 or	C-DIODE	1SS355	(1)	223269R2
L2501	CHOKE COIL	BLM21PG221SN1	1	230949R2
L2502	CHOKE COIL	NCH-2541	1	231363K470
L2603	EMIFIL	BK1608LM182-T	1	230958R1
L2604	EMIFIL	BK1608LM182-T	1	230958R1

C2001	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2002	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2003	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2004	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2005	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2006	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2007	C-CERA C	CK725B1H-102K1	1	332101025R1
C2008	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2009	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2010	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2011	C-CERA C	CK725B1H-102K1	1	332101025R1
C2012	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2013	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2014	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2015	C-CERA C	CK725B1H-102K1	1	332101025R1
C2016	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2017	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2018	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2019	C-CERA C	CK725B1H-102K1	1	332101025R1
C2024	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2025	VR C	CE04W6.3V-470M(VR)	1	394624717T
C2026	VR C	CE04W6.3V-470M(VR)	1	394624717T
C2027	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2028	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2031	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2032	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2035	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2036	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2043	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2044	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2045	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2046	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2047	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2048	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2049	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2050	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2051	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2052	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2053	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2054	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2055	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2056	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2057	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2058	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2061	VR C	CE04W6.3V-470M(VR)	1	394624717T
C2062	VR C	CE04W6.3V-470M(VR)	1	394624717T
C2069	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2070	VR C	CE04W6.3V-470M(VR)	1	394624717T
C2071	VR C	CE04W6.3V-470M(VR)	1	394624717T
C2072	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2073	VR C	CE04W6.3V-470M(VR)	1	394624717T
C2074	VR C	CE04W6.3V-470M(VR)	1	394624717T
C2075	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2076	VR C	CE04W6.3V-470M(VR)	1	394624717T
C2077	VR C	CE04W6.3V-470M(VR)	1	394624717T
C2082	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2083	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2084	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2088	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2089	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2090	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2091	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2092	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2201	UTSP C	CE04W50V-1M(UTSP)	1	397580107T
C2202	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2203	UTSP C	CE04W50V-1M(UTSP)	1	397580107T
C2204	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2205	UTSP C	CE04W50V-1M(UTSP)	1	397580107T
C2206	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2207	UTSP C	CE04W50V-1M(UTSP)	1	397580107T
C2208	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2209	UTSP C	CE04W50V-1M(UTSP)	1	397580107T
C2210	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2211	UTSP C	CE04W50V-1M(UTSP)	1	397580107T
C2212	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2214	UTSP C	CE04W50V-1M(UTSP)	1	397580107T
C2215	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2216	UTSP C	CE04W50V-1M(UTSP)	1	397580107T
C2217	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2218	UTSP C	CE04W50V-1M(UTSP)	1	397580107T
C2219	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2221	C-CERA C	CK725B1H-102K1	1	332101025R1
C2222	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2223	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2224	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2225	C-CERA C	CK725F1E-104Z1	1	332161040R1

C2226	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2227	UTSP C	CE04W50V-1M(UTSP)	1	397580107T
C2228	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2229	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2230	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2231	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2232	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2233	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2234	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2235	VR C	CE04W16V-220M(VR)	1	394642217T
C2236	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2237	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2239	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2240	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2241	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2242	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2243	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2244	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2245	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2246	VR C	CE04W6.3V-220M(VR)	1	394622217T
C2248	VR C	CE04W6.3V-220M(VR)	1	394622217T
C2249	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2250	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2262	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2263	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2264	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2265	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2266	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2267	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C2501	VR C	CE04W16V-470M(VR)	1	394644717T
C2502	C-CERA C	CK725B1H-223K1	1	332102235R1
C2503	C-CERA C	CK725F1E-104Z1	1	332161040R1
C2504	VR C	CE04W16V-470M(VR)	1	394644717T
C2505	TF C	ECQ-V50V-104J	1	374721044T
C2507	VR C	CE04W16V-10000M(VR)	1	394641037S
C2508	VR C	CE04W25V-2200M(VR)	1	394652227S
C2509	UTSP C	CE04W50V-1M(UTSP)	1	397580107T
C2510	VR C	CE04W16V-100M(VR)	1	394641017T
C2511	UTSP C	CE04W50V-1M(UTSP)	1	397580107T
C2512	VR C	CE04W16V-100M(VR)	1	394641017T
C2513	UTSP C	CE04W50V-22M(UTSP)	1	397582207T
C2514	UTSP C	CE04W50V-22M(UTSP)	1	397582207T
C2515	UTSP C	CE04W50V-1M(UTSP)	1	397580107T
C2516	VR C	CE04W16V-100M(VR)	1	394641017T
C2601	C-CERA C	CK725B1H-102K1	1	332101025R1
C2602	C-CERA C	CK725B1H-102K1	1	332101025R1
C2605	C-CERA C	CC725CH1H-101J1	1	342101014R1
C2607	C-CERA C	CC725CH1H-101J1	1	342101014R1
C4001	TF C	ECQ-B50V-221K	1	374722215T
C4002	TF C	ECQ-B50V-221K	1	374722215T
C4003	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4004	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4005	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4006	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4007	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4008	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4009	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4010	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4011	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4012	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4013	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4014	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4015	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4016	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4017	TF C	ECQ-B50V-221K	1	374722215T
C4018	TF C	ECQ-B50V-221K	1	374722215T
C4019	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4020	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4023	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4024	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4027	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4028	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4031	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4032	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4035	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4036	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4039	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4040	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4043	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4044	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4055	TF C	ECQ-B50V-221K	1	374722215T
C4056	TF C	ECQ-B50V-221K	1	374722215T
C4057	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4058	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4059	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4060	UTSP C	CE04W50V 47M(UTSP)	1	397584707T

C4061	UTSP C	CE04W25V-220M(UTSP)	1	397552217T	
C4062	UTSP C	CE04W25V-220M(UTSP)	1	397552217T	
C4063	TF C	ECQ-B50V-682J	1	374726824T	
C4064	TF C	ECQ-B50V-682J	1	374726824T	
C4065	TF C	ECQ-B50V-182J	1	374721824T	
C4066	TF C	ECQ-B50V-182J	1	374721824T	
C4067	UTSP C	CE04W50V-22M(UTSP)	1	397582207T	
C4068	UTSP C	CE04W50V-22M(UTSP)	1	397582207T	
C4069	TF C	ECQ-B50V-222J	1	374722224T	
C4070	TF C	ECQ-B50V-222J	1	374722224T	
C4073	C-CERA C	CC725CH1H-221J1	1	342102214R1	<SA805>
C4074	C-CERA C	CC725CH1H-221J1	1	342102214R1	<SA805>
C4075	UTSP C	CE04W50V-10M(UTSP)	1	397581007T	<SA805>
C4076	UTSP C	CE04W50V-10M(UTSP)	1	397581007T	<SA805>
C4079	UTSP C	CE04W25V-220M(UTSP)	1	397552217T	
C4080	UTSP C	CE04W25V-220M(UTSP)	1	397552217T	
C4081	UTSP C	CE04W50V-100M(UTSP)	1	397581017T	
C4083	UTSP C	CE04W50V-100M(UTSP)	1	397581017T	
C4085	UTSP C	CE04W50V-100M(UTSP)	1	397581017T	
C4087	TF C	ECQ-B50V-102J	1	374721024T	
C4088	TF C	ECQ-B50V-102J	1	374721024T	
C4089	TF C	ECQ-B50V-102J	1	374721024T	
C4090	TF C	ECQ-B50V-102J	1	374721024T	
C4091	TF C	ECQ-B50V-221K	1	374722215T	
C4094	UTSP C	CE04W50V-100M(UTSP)	1	397581017T	
C4101	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4102	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4103	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4104	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4105	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4106	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4107	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4108	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4111	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4112	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4119	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	<DC, DT, MA, MP,
C4120	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	<DC, DT, MA, MP,
C4175	C-CERA C	CC725SL1E-152J1	1	342131524R1	
C4176	C-CERA C	CC725SL1E-152J1	1	342131524R1	
C4177	C-CERA C	CC725CH1H-221J1	1	342102214R1	
C4178	C-CERA C	CC725CH1H-221J1	1	342102214R1	
C4215	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4216	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4217	C-CERA C	CC725CH1H-221J1	1	342102214R1	
C4218	C-CERA C	CC725CH1H-221J1	1	342102214R1	
C4219	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4220	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4221	C-CERA C	CC725CH1H-221J1	1	342102214R1	
C4222	C-CERA C	CC725CH1H-221J1	1	342102214R1	
C4243	C-CERA C	CC725CH1H-102J1	1	342101024R1	
C4302	UTSP C	CE04W50V-100M(UTSP)	1	397581017T	
C4311	C-CERA C	CC725CH1H-101J1	1	342101014R1	
C4312	C-CERA C	CC725CH1H-101J1	1	342101014R1	
C4313	C-CERA C	CC725CH1H-101J1	1	342101014R1	
C4314	C-CERA C	CC725CH1H-101J1	1	342101014R1	
C4315	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4316	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4319	C-CERA C	CC725CH1H-101J1	1	342101014R1	
C4320	C-CERA C	CC725CH1H-101J1	1	342101014R1	
C4321	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4322	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4401	UTSP C	CE04W25V-100M(UTSP)	1	397551017T	
C4402	UTSP C	CE04W25V-100M(UTSP)	1	397551017T	
C4403	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4404	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4405	UTSP C	CE04W25V-220M(UTSP)	1	397552217T	
C4406	UTSP C	CE04W25V-220M(UTSP)	1	397552217T	
C4407	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4408	C-CERA C	CK725F1H-104Z1	1	332151040R1	
C4409	C-CERA C	CC725CH1H-101J1	1	342101014R1	
C4410	C-CERA C	CC725CH1H-101J1	1	342101014R1	
C4411	C-CERA C	CC725CH1H-101J1	1	342101014R1	
C4412	C-CERA C	CC725CH1H-101J1	1	342101014R1	
C4413	UTSP C	CE04W50V-10M(UTSP)	1	397581007T	
C4414	UTSP C	CE04W50V-10M(UTSP)	1	397581007T	
C4415	UTSP C	CE04W50V-10M(UTSP)	1	397581007T	
C4416	UTSP C	CE04W50V-10M(UTSP)	1	397581007T	
C4417	UTSP C	CE04W50V-100M(UTSP)	1	397581017T	
C4419	C-CERA C	CC725CH1H-102J1	1	342101024R1	
C4420	UTSP C	CE04W50V-10M(UTSP)	1	397581007T	
C4421	TF C	ECQ-B50V-102J	1	374721024T	
C4422	TF C	ECQ-B50V-102J	1	374721024T	
C4423	TF C	ECQ-V50V-104J	1	374721044T	
C4424	TF C	ECQ-V50V-104J	1	374721044T	
C4501	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4502	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	

C4503	C-CERA C	CC725CH1H-101J1	1	342101014R1
C4504	C-CERA C	CC725CH1H-101J1	1	342101014R1
C4505	TF C	ECQ-V50V-104J	1	374721044T
C4600	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4601	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4602	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4603	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4604	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4605	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4606	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4607	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4610	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4611	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4612	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4613	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4614	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4615	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4616	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4617	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4622	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4623	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4624	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4625	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4626	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4627	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4630	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4631	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4632	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4633	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4634	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4635	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4636	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4637	C-CERA C	CC725CH1H-221J1	1	342102214R1
C4650	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4651	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4652	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4653	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4654	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4655	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4656	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4657	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
R2001	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2002	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2003	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2004	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2005	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2006	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2007	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2008	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2009	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2010	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2011	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2012	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2013	C-CARBON R	RN72K1J-104JE	1	435031044R1
R2014	C-CARBON R	RN72K1J-104JE	1	435031044R1
R2015	C-CARBON R	RN72K1J-104JE	1	435031044R1
R2016	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2017	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2018	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2019	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2020	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2021	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2022	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2023	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2024	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2025	C-CARBON R	RN72K1J-104JE	1	435031044R1
R2026	C-CARBON R	RN72K1J-104JE	1	435031044R1
R2027	C-CARBON R	RN72K1J-104JE	1	435031044R1
R2029	C-CARBON R	RN72K1J-104JE	1	435031044R1
R2030	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2031	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2032	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2038	C-CARBON R	RN72K1J-104JE	1	435031044R1
R2039	C-CARBON R	RN72K1J-104JE	1	435031044R1
R2040	C-CARBON R	RN72K1J-104JE	1	435031044R1
R2041	C-CARBON R	RN72K1J-104JE	1	435031044R1
R2042	C-CARBON R	RN72K1J-104JE	1	435031044R1
R2043	C-CARBON R	RN72K1J-104JE	1	435031044R1
R2046	C-CARBON R	RN72K1J-022JE	1	435030224R1
R2047	C-CARBON R	RN72K1J-022JE	1	435030224R1
R2057	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2058	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2059	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2060	C-CARBON R	RN72K1J-104JE	1	435031044R1
R2061	C-CARBON R	RN72K1J-102JE	1	435031024R1
R2062	C-CARBON R	RN72K1J-102JE	1	435031024R1

R2063	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2064	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2065	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2066	C-CARBON R	RN72K1J-104JE	1	435031044R1
R2067	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2068	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2069	C-CARBON R	RN72K1J-104JE	1	435031044R1
R2070	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2074	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2075	C-CARBON R	RN72K1J-680JE	1	435036804R1
R2076	C-CARBON R	RN72K1J-222JE	1	435032224R1
R2077	C-CARBON R	RN72K1J-333JE	1	435033334R1
R2078	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2082	C-CARBON R	RN72K1J-102JE	1	435031024R1
R2083	C-CARBON R	RN72K1J-102JE	1	435031024R1
R2084	C-CARBON R	RN72K1J-102JE	1	435031024R1
R2085	C-CARBON R	RN72K1J-221JE	1	435032214R1
R2086	C-CARBON R	RN72K1J-221JE	1	435032214R1
R2201	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2202	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2203	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2204	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2205	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2206	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2207	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2208	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2209	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2216	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2217	C-CARBON R	RN72K1J-101JE	1	435031014R1
R2218	C-CARBON R	RN72K1J-101JE	1	435031014R1
R2219	C-CARBON R	RN72K1J-022JE	1	435030224R1
R2220	C-CARBON R	RN72K1J-102JE	1	435031024R1
R2221	C-CARBON R	RN72K1J-102JE	1	435031024R1
R2222	C-CARBON R	RN72K1J-102JE	1	435031024R1
R2223	C-CARBON R	RN72K1J-102JE	1	435031024R1
R2227	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2228	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2229	C-CARBON R	RN72K1J-222JE	1	435032224R1
R2230	C-CARBON R	RN72K1J-102JE	1	435031024R1
R2231	C-CARBON R	RN72K1J-022JE	1	435030224R1
R2233	C-CARBON R	RN72K1J-330JE	1	435033304R1
R2234	C-CARBON R	RN72K1J-330JE	1	435033304R1
R2235	C-CARBON R	RN72K1J-330JE	1	435033304R1
R2237	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2238	C-CARBON R	RN72K1J-033JE	1	435030334R1
R2239	C-CARBON R	RN72K1J-033JE	1	435030334R1
R2240	C-CARBON R	RN72K1J-033JE	1	435030334R1
R2241	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2242	C-CARBON R	RN72K1J-750JE	1	435037504R1
R2246	C-CARBON R	RN72K1J-022JE	1	435030224R1
R2247	C-CARBON R	RN72K1J-102JE	1	435031024R1
R2248	C-CARBON R	RN72K1J-104JE	1	435031044R1
R2250	C-CARBON R	RN72K1J-271JE	1	435032714R1
R2263	C-CARBON R	RN72K1J-104JE	1	435031044R1
R2271	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2501	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2502	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2503	C-CARBON R	RN72K1J-821JE	1	435038214R1
R2504	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2505	METAL R	RNU1/2WCJ-0.47	1	453534794T
R2506	C-CARBON R	RN72K1J-103JE	1	435031034R1
R2507	METAL R	RNU1/2WCJ-0.22	1	453532294T
R2508	C-CARBON R	RN72K1J-102JE	1	435031024R1
R2509	C-CARBON R	RN72K1J-473JE	1	435034734R1
R2510	METAL R	RNU1WCJ-0.22	1	453632294T
R2511	C-CARBON R	RN72K2E-015JE	1	435220154R1
R2512	METAL R	RNU2WCJ-4.7	1	452730474F
R2513	METAL R	RNU2WCJ-4.7	1	452730474F
R2514	METAL R	RNU2WCJ-4.7	1	452730474F
R2515	C-CARBON R	RN72K1J-471JE	1	435034714R1
R2516	C-CARBON R	RN72K1J-471JE	1	435034714R1
R2601	C-CARBON R	RN72K1J-101JE	1	435031014R1
R2602	C-CARBON R	RN72K1J-101JE	1	435031014R1
R2609	C-CARBON R	RN72K1J-039JE	1	435030394R1
R2610	C-CARBON R	RN72K1J-224JE	1	435032244R1
R2611	C-CARBON R	RN72K1J-102JE	1	435031024R1
R2616	C-CARBON R	RN72K1J-000JE	1	435030004R1
R2617	C-CARBON R	RN72K1J-000JE	1	435030004R1
R2618	C-CARBON R	RN72K1J-000JE	1	435030004R1
R2620	C-CARBON R	RN72K1J-000JE	1	435030004R1
R4001	C-CARBON R	RN72K1J-331JE	1	435033314R1
R4002	C-CARBON R	RN72K1J-331JE	1	435033314R1
R4003	C-CARBON R	RN72K1J-563JE	1	435035634R1
R4004	C-CARBON R	RN72K1J-563JE	1	435035634R1
R4005	C-CARBON R	RN72K1J-331JE	1	435033314R1
R4006	C-CARBON R	RN72K1J-331JE	1	435033314R1

R4007	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4008	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4009	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R4010	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R4011	C-CARBON R	RN72K1J-563JE	1	435035634R1	
R4012	C-CARBON R	RN72K1J-563JE	1	435035634R1	
R4013	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R4014	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R4015	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4016	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4017	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R4018	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R4019	C-CARBON R	RN72K1J-563JE	1	435035634R1	
R4020	C-CARBON R	RN72K1J-563JE	1	435035634R1	
R4021	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R4022	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R4023	C-CARBON R	RN72K1J-563JE	1	435035634R1	
R4024	C-CARBON R	RN72K1J-563JE	1	435035634R1	
R4025	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R4026	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R4027	C-CARBON R	RN72K1J-563JE	1	435035634R1	
R4028	C-CARBON R	RN72K1J-563JE	1	435035634R1	
R4029	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R4030	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R4031	C-CARBON R	RN72K1J-563JE	1	435035634R1	
R4032	C-CARBON R	RN72K1J-563JE	1	435035634R1	
R4033	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R4034	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R4035	C-CARBON R	RN72K1J-563JE	1	435035634R1	
R4036	C-CARBON R	RN72K1J-563JE	1	435035634R1	
R4037	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4038	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4041	C-CARBON R	RN72K1J-100JE	1	435031004R1	
R4042	C-CARBON R	RN72K1J-100JE	1	435031004R1	
R4043	C-CARBON R	RN72K1J-101JE	1	435031014R1	
R4044	C-CARBON R	RN72K1J-101JE	1	435031014R1	
R4045	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R4046	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R4047	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4048	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4051	C-CARBON R	RN72K1J-100JE	1	435031004R1	
R4052	C-CARBON R	RN72K1J-100JE	1	435031004R1	
R4053	C-CARBON R	RN72K1J-101JE	1	435031014R1	
R4054	C-CARBON R	RN72K1J-101JE	1	435031014R1	
R4055	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R4056	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R4057	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4058	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4061	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4062	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4065	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4066	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4069	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4070	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4073	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4074	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4077	C-CARBON R	RN72K1J-102JE	1	435031024R1	
R4078	C-CARBON R	RN72K1J-102JE	1	435031024R1	
R4079	C-CARBON R	RN72K1J-563JE	1	435035634R1	
R4080	C-CARBON R	RN72K1J-563JE	1	435035634R1	
R4081	METAL O R	RS1/2WBJ-2.7K	1	443522724T	
R4082	METAL O R	RS1/2WBJ-2.7K	1	443522724T	
R4083	C-CARBON R	RN72K1J-223JE	1	435032234R1	
R4084	C-CARBON R	RN72K1J-223JE	1	435032234R1	
R4085	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4086	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4087	C-CARBON R	RN72K1J-272JE	1	435032724R1	
R4088	C-CARBON R	RN72K1J-272JE	1	435032724R1	
R4089	C-CARBON R	RN72K1J-332JE	1	435033324R1	
R4090	C-CARBON R	RN72K1J-332JE	1	435033324R1	
R4091	C-CARBON R	RN72K1J-332JE	1	435033324R1	
R4092	C-CARBON R	RN72K1J-332JE	1	435033324R1	
R4093	C-CARBON R	RN72K1J-393JE	1	435033934R1	
R4094	C-CARBON R	RN72K1J-393JE	1	435033934R1	
R4095	C-CARBON R	RN72K1J-474JE	1	435034744R1	
R4096	C-CARBON R	RN72K1J-474JE	1	435034744R1	
R4097	C-CARBON R	RN72K1J-821JE	1	435038214R1	
R4098	C-CARBON R	RN72K1J-821JE	1	435038214R1	
R4099	C-CARBON R	RN72K1J-821JE	1	435038214R1	
R4100	C-CARBON R	RN72K1J-821JE	1	435038214R1	
R4101	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4102	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4103	C-CARBON R	RN72K1J-331JE	1	435033314R1	<SA805>
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R4105	C-CARBON R	RN72K1J-563JE	1	435035634R1	<SA805>
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R4107	C-CARBON R	RN72K1J-224JE	1	435032244R1	<SA805>
R4108	C-CARBON R	RN72K1J-224JE	1	435032244R1	<SA805>
R4113	NF CARBON R	R25J-100	1	415471014T	
R4114	NF CARBON R	R25J-100	1	415471014T	
R4115	METAL O R	RS1/2WBJ-22	1	443522204T	
R4116	METAL O R	RS1/2WBJ-22	1	443522204T	
R4117	METAL O R	RS1/2WBJ-22	1	443522204T	
R4118	METAL O R	RS1/2WBJ-22	1	443522204T	
R4119	METAL O R	RS1/2WBJ-22	1	443522204T	
R4120	METAL O R	RS1/2WBJ-22	1	443522204T	
R4121	C-CARBON R	RN72K1J-222JE	1	435032224R1	<DC, DT, MA, MP,
R4122	C-CARBON R	RN72K1J-222JE	1	435032224R1	<DC, DT, MA, MP,
R4123	C-CARBON R	RN72K1J-000JE	1	435030004R1	<DC, DT, MA, MP,
R4124	C-CARBON R	RN72K1J-000JE	1	435030004R1	<DC, DT, MA, MP,
R4125	C-CARBON R	RN72K1J-224JE	1	435032244R1	<DC, DT, MA, MP,
R4126	C-CARBON R	RN72K1J-224JE	1	435032244R1	<DC, DT, MA, MP,
R4127	METAL O R	RS1/2WBJ-22	1	443522204T	
R4128	METAL O R	RS1/2WBJ-22	1	443522204T	
R4129	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R4130	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R4131	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R4133	C-CARBON R	RN72K1J-220JE	1	435032204R1	
R4134	C-CARBON R	RN72K1J-220JE	1	435032204R1	
R4135	C-CARBON R	RN72K1J-220JE	1	435032204R1	
R4136	C-CARBON R	RN72K1J-220JE	1	435032204R1	
R4151	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4152	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4153	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4154	C-CARBON R	RN72K1J-224JE	1	435032244R1	
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R4156	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4157	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4158	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4159	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R4160	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R4161	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R4162	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R4163	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4164	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4165	C-CARBON R	RN72K1J-101JE	1	435031014R1	<DC, DT, MA, MP,
R4166	C-CARBON R	RN72K1J-101JE	1	435031014R1	<DC, DT, MA, MP,
R4167	C-CARBON R	RN72K1J-104JE	1	435031044R1	<DC, DT, MA, MP,
R4168	C-CARBON R	RN72K1J-104JE	1	435031044R1	<DC, DT, MA, MP,
R4169	C-CARBON R	RN72K1J-473JE	1	435034734R1	<DC, DT, MA, MP,
R4170	C-CARBON R	RN72K1J-101JE	1	435031014R1	<DC, DT, MA, MP,
R4171	C-CARBON R	RN72K1J-104JE	1	435031044R1	<DC, DT, MA, MP,
R4175	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R4176	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R4177	C-CARBON R	RN72K1J-102JE	1	435031024R1	
R4178	C-CARBON R	RN72K1J-102JE	1	435031024R1	
R4179	C-CARBON R	RN72K1J-122JE	1	435031224R1	
R4180	C-CARBON R	RN72K1J-122JE	1	435031224R1	
R4217	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4218	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4219	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R4220	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R4221	C-CARBON R	RN72K1J-101JE	1	435031014R1	
R4222	C-CARBON R	RN72K1J-101JE	1	435031014R1	
R4223	C-CARBON R	RN72K1J-100JE	1	435031004R1	
R4224	C-CARBON R	RN72K1J-100JE	1	435031004R1	
R4225	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4226	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4227	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R4228	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R4229	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4230	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4231	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R4232	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R4233	C-CARBON R	RN72K1J-101JE	1	435031014R1	
R4234	C-CARBON R	RN72K1J-101JE	1	435031014R1	
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R4236	C-CARBON R	RN72K1J-100JE	1	435031004R1	
R4237	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4238	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4239	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R4240	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R4257	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4258	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4301	METAL O R	RS1/2WBJ-22	1	443522204T	
R4302	METAL O R	RS1/2WBJ-22	1	443522204T	
R4303	C-CARBON R	RN72K1J-560JE	1	435035604R1	
R4304	C-CARBON R	RN72K1J-560JE	1	435035604R1	
R4305	C-CARBON R	RN72K1J-152JE	1	435031524R1	
R4306	C-CARBON R	RN72K1J-152JE	1	435031524R1	
R4307	C-CARBON R	RN72K1J-123JE	1	435031234R1	
R4308	C-CARBON R	RN72K1J-123JE	1	435031234R1	

R4309	C-CARBON R	RN72K1J-222JE	1	435032224R1
R4310	C-CARBON R	RN72K1J-222JE	1	435032224R1
R4311	C-CARBON R	RN72K1J-123JE	1	435031234R1
R4312	C-CARBON R	RN72K1J-123JE	1	435031234R1
R4313	C-CARBON R	RN72K1J-222JE	1	435032224R1
R4314	C-CARBON R	RN72K1J-222JE	1	435032224R1
R4315	C-CARBON R	RN72K1J-103JE	1	435031034R1
R4316	C-CARBON R	RN72K1J-103JE	1	435031034R1
R4319	C-CARBON R	RN72K1J-103JE	1	435031034R1
R4320	C-CARBON R	RN72K1J-103JE	1	435031034R1
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R4327	C-CARBON R	RN72K1J-103JE	1	435031034R1
R4328	C-CARBON R	RN72K1J-103JE	1	435031034R1
R4329	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4330	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4331	C-CARBON R	RN72K1J-103JE	1	435031034R1
R4332	C-CARBON R	RN72K1J-103JE	1	435031034R1
R4335	C-CARBON R	RN72K1J-103JE	1	435031034R1
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R4340	C-CARBON R	RN72K1J-103JE	1	435031034R1
R4341	C-CARBON R	RN72K1J-103JE	1	435031034R1
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R4343	C-CARBON R	RN72K1J-103JE	1	435031034R1
R4344	C-CARBON R	RN72K1J-103JE	1	435031034R1
R4345	C-CARBON R	RN72K1J-103JE	1	435031034R1
R4347	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4348	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4401	METAL O R	RS1/2WBJ-22	1	442522204F
R4402	METAL O R	RS1/2WBJ-22	1	442522204F
R4403	C-CARBON R	RN72K1J-222JE	1	435032224R1
R4404	C-CARBON R	RN72K1J-222JE	1	435032224R1
R4405	C-CARBON R	RN72K1J-331JE	1	435033314R1
R4406	C-CARBON R	RN72K1J-331JE	1	435033314R1
R4407	METAL O R	RS1/2WBJ-1.2K	1	443521224T
R4408	C-CARBON R	RN72K1J-331JE	1	435033314R1
R4409	C-CARBON R	RN72K1J-222JE	1	435032224R1
R4410	C-CARBON R	RN72K1J-331JE	1	435033314R1
R4411	C-CARBON R	RN72K1J-331JE	1	435033314R1
R4412	C-CARBON R	RN72K1J-222JE	1	435032224R1
R4413	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4414	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4415	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4416	C-CARBON R	RN72K1J-222JE	1	435032224R1
R4417	C-CARBON R	RN72K1J-182JE	1	435031824R1
R4418	C-CARBON R	RN72K1J-183JE	1	435031834R1
R4419	METAL O R	RS1/2WBJ-22	1	443522204T
R4420	METAL O R	RS1/2WBJ-22	1	443522204T
R4421	C-CARBON R	RN72K1J-182JE	1	435031824R1
R4422	C-CARBON R	RN72K1J-182JE	1	435031824R1
R4501	C-CARBON R	RN72K1J-182JE	1	435031824R1
R4502	C-CARBON R	RN72K1J-182JE	1	435031824R1
R4503	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4504	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4505	C-CARBON R	RN72K1J-222JE	1	435032224R1
R4506	C-CARBON R	RN72K1J-222JE	1	435032224R1
R4507	C-CARBON R	RN72K1J-562JE	1	435035624R1
R4508	C-CARBON R	RN72K1J-562JE	1	435035624R1
R4509	C-CARBON R	RN72K1J-272JE	1	435032724R1
R4510	C-CARBON R	RN72K1J-272JE	1	435032724R1
R4511	C-CARBON R	RN72K1J-272JE	1	435032724R1
R4512	C-CARBON R	RN72K1J-272JE	1	435032724R1
R4513	METAL O R	RS1/2WBJ-47	1	443524704T
R4514	METAL O R	RS1/2WBJ-47	1	443524704T
R4515	METAL O R	RS1/2WBJ-47	1	443524704T
R4516	METAL O R	RS1/2WBJ-47	1	443524704T
R4517	C-CARBON R	RN72K1J-182JE	1	435031824R1
R4518	C-CARBON R	RN72K1J-104JE	1	435031044R1
R4519	C-CARBON R	RN72K1J-390JE	1	435033904R1
R4600	C-CARBON R	RN72K1J-331JE	1	435033314R1
R4601	C-CARBON R	RN72K1J-331JE	1	435033314R1
R4602	C-CARBON R	RN72K1J-331JE	1	435033314R1
R4603	C-CARBON R	RN72K1J-331JE	1	435033314R1
R4604	C-CARBON R	RN72K1J-331JE	1	435033314R1
R4605	C-CARBON R	RN72K1J-331JE	1	435033314R1
R4606	C-CARBON R	RN72K1J-331JE	1	435033314R1
R4607	C-CARBON R	RN72K1J-331JE	1	435033314R1
R4610	C-CARBON R	RN72K1J-563JE	1	435035634R1
R4611	C-CARBON R	RN72K1J-563JE	1	435035634R1
R4612	C-CARBON R	RN72K1J-563JE	1	435035634R1
R4613	C-CARBON R	RN72K1J-563JE	1	435035634R1

R4614	C-CARBON R	RN72K1J-563JE	1	435035634R1
R4615	C-CARBON R	RN72K1J-563JE	1	435035634R1
R4616	C-CARBON R	RN72K1J-563JE	1	435035634R1
R4617	C-CARBON R	RN72K1J-563JE	1	435035634R1
R4620	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4621	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4622	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4623	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4624	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4625	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4626	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4627	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4632	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4633	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4634	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4635	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4636	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4637	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4640	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4641	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4642	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4643	C-CARBON R	RN72K1J-223JE	1	435032234R1
R4644	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4645	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4646	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4647	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4650	C-CARBON R	RN72K1J-221JE	1	435032214R1
R4651	C-CARBON R	RN72K1J-221JE	1	435032214R1
R4652	C-CARBON R	RN72K1J-221JE	1	435032214R1
R4653	C-CARBON R	RN72K1J-221JE	1	435032214R1
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R4655	C-CARBON R	RN72K1J-221JE	1	435032214R1
R4656	C-CARBON R	RN72K1J-221JE	1	435032214R1
R4657	C-CARBON R	RN72K1J-221JE	1	435032214R1
R4660	C-CARBON R	RN72K1J-101JE	1	435031014R1
R4661	C-CARBON R	RN72K1J-101JE	1	435031014R1
R4662	C-CARBON R	RN72K1J-101JE	1	435031014R1
R4663	C-CARBON R	RN72K1J-101JE	1	435031014R1
R4664	C-CARBON R	RN72K1J-101JE	1	435031014R1
R4665	C-CARBON R	RN72K1J-101JE	1	435031014R1
R4666	C-CARBON R	RN72K1J-101JE	1	435031014R1
R4667	C-CARBON R	RN72K1J-101JE	1	435031014R1
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R4676	C-CARBON R	RN72K1J-100JE	1	435031004R1
R4677	C-CARBON R	RN72K1J-100JE	1	435031004R1
R4680	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4681	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4682	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4683	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4684	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4685	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4686	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4687	C-CARBON R	RN72K1J-224JE	1	435032244R1
R4690	C-CARBON R	RN72K1J-470JE	1	435034704R1
R4691	C-CARBON R	RN72K1J-470JE	1	435034704R1
R4692	C-CARBON R	RN72K1J-470JE	1	435034704R1
R4693	C-CARBON R	RN72K1J-470JE	1	435034704R1
R4694	C-CARBON R	RN72K1J-470JE	1	435034704R1
R4695	C-CARBON R	RN72K1J-470JE	1	435034704R1
R4696	C-CARBON R	RN72K1J-470JE	1	435034704R1
R4697	C-CARBON R	RN72K1J-470JE	1	435034704R1
F2501A	FUSE HOL	NSCT-1P2031	1	25052133T
F2501B	FUSE HOL	NSCT-1P2031	1	25052133T
F2502A	FUSE HOL	NSCT-1P2031	1	25052133T
F2502B	FUSE HOL	NSCT-1P2031	1	25052133T
JL2601B	WIRE TRAP	NPLG-3P586	1	25055624
JL4013B	SOCKET	NSCT-5P97	1	25050269
JL4014B	SOCKET	NSCT-6P98	1	25050270
JL8001A	WIRE HOL	NSCT-4P875	1	25051088
JL901B	WIRE TRAP	NPLG-7P590	1	25055628
P2001	PIN JACK	NPJ-10PDBY621	1	25045842
P2001 or	PIN JACK	NPJ-10PDBY478	(1)	25045681
P2002	PIN JACK	NPJ-10PDBY621	1	25045842
P2002 or	PIN JACK	NPJ-10PDBY478	(1)	25045681
P2003	PIN JACK	NPJ-10PDBY621	1	25045842
P2003 or	PIN JACK	NPJ-10PDBY478	(1)	25045681
P2004	PIN JACK	NPJ-5PDBY622	1	25045843
P2004 or	PIN JACK	NPJ-5PDBY479	(1)	25045682
P2010A	PLUG	IMSA-9142B-24A	1	25056602
P2201	PIN JACK	NPJ-6PDGLRGLR646	1	25045871
P2202	PIN JACK	NPJ-6PDGLRGLR646	1	25045871

P2502	PLUG	NPLG-3P117	1	25055133	
P2601	ST JACK	MSJ-035-22	1	25045887	
P2601 or	JACK	YKB21-5130	(1)	25045387	
P2604	ST JACK	HSJ1002-01-1020	1	25045647	
P2605	TRM(SCREW)	NEJITANSI M3	1	25065425	
P2801A	SOCKET	NSCT-23P2116	1	25052219	
P2992	RETAINER	(JOINT)	1	27142069	
P4001	PIN JACK	NPJ-2PDWR558	1	25045776	<DC, DT, MA, MP,
P4001 or	PIN JACK	NPJ-2PDBL185	(1)	25045333	<DC, DT, MA, MP,
P4001	PIN JACK	NPJ-4PDWWRR624	1	25045845	<SA805>
P4001 or	PIN JACK	NPJ-4PDBL162	(1)	25045303	<SA805>
P4003	PIN JACK	NPJ-6PDWWWRRR561	1	25045779	
P4003 or	PIN JACK	NPJ-6PDBL159	(1)	25045300	
P4004	PIN JACK	NPJ-6PDWWWRRR561	1	25045779	
P4004 or	PIN JACK	NPJ-6PDBL159	(1)	25045300	
P4005	PIN JACK	NPJ-6PDWWWRRR561	1	25045779	
P4005 or	PIN JACK	NPJ-6PDBL159	(1)	25045300	
P4006	PIN JACK	NPJ-4PDGPRW661	1	25045890	
P4006 or	PIN JACK	NPJ-4PDGPRW502	(1)	25045707	
P4007	PIN JACK	NPJ-4PDELNT662	1	25045891	
P4007 or	PIN JACK	NPJ-4PDELNT504	(1)	25045709	
P4008	PIN JACK	NPJ-4PDWWRR624	1	25045845	
P4008 or	PIN JACK	NPJ-4PDBL162	(1)	25045303	
P4009	PIN JACK	NPJ-4PDGPRW661	1	25045890	
P4009 or	PIN JACK	NPJ-4PDGPRW502	(1)	25045707	
P4010	PIN JACK	NPJ-4PDELNT662	1	25045891	
P4010 or	PIN JACK	NPJ-4PDBL162	(1)	25045303	
P4020A	PLUG	IMSA-9142B-26A	1	25056603	
P4021A	PLUG	IMSA-9142B-26A	1	25056603	
P4030A	PLUG	NPLG-9P661	1	25055705	
P4030B	SOCKET	NSCT-9P1024	1	25051234	
P4032A	PLUG	NPLG-8P660	1	25055704	
P4033A	PLUG	NPLG-13P665	1	25055709	
P4201	TRM(SCREW)	NEJITANSI M3	1	25065425	
P4202	TRM	NTM-1P233(M1969)	1	25060302	
P5000	PLUG	NPLG-13P360	1	25055377	
P5001B	CRIMP AS	CRIMP SR805_2	1	20799170UL	
RL4401	RELAY	NRL-2P2A-DC12-178	1	25065664	
RL4402	RELAY	NRL-2P2A-DC12-178	1	25065664	
RL4403	RELAY	NRL-2P2A-DC12-178	1	25065664	
RL4404	RELAY	NRL-2P2A-DC12-178	1	25065664	
RL4501	RELAY	NRL-2P5A-DC12-187	1	25065685	

U11 **SP TERMINAL PC BOARD (NATRM-9055-1A/1B/1C/1D/1X)**
U12 **SP TERMINAL PC BOARD (NAETC-9056-1A/1B/1C/1D/1X)**
U13 **POWER SUPPLY PC BOARD (NAPS-9057-1A/1B/1C/1D/1X)**
U14 **INLET PC BOARD (NAPS-9058-1A/1B/1C/1D/1X)**

REF. NO.	PART NAME	DESCRIPTION	Q'TY	PART NO. (SN)	REMARKS
Q4901	TR	2SB1565-E	1	2202715	
Q4901 or	TR	2SA1488-Y	1	2203394	
Q4901A	HEAT SINK	RAD-165	1	27160500	
Q4901B	SCREW	3TTB+8B(3CM)SR	1	801637	
Q4902	TR	2SD2394-E	1	2202705	
Q4902 or	TR	2SC3851-Y	1	2203384	
Q4903	TR	2SC1815-GR	1	2211255T	
Q4904	TR	2SA1015-GR	1	2211455T	
Q4905	TR	2SK365-GR	1	2212445T	
Q4906	TR	2SK365-GR	1	2212445T	
Q6800	TR	RN1226	1	2214680T	
Q6802	TR	RN1226	1	2214680T	
Q6805	TR	RN1226	1	2214680T	
Q6807	TR	RN1226	1	2214680T	
Q9100	TR	2SC1815-GR	1	2211255T	<DC>
Q9101	TR	2SC1815-GR	1	2211255T	
Q9103	IC	NJM2388F09	1	22242383	<DC, DT, MP, MA,
D4901	ZENER D	MTZJ15B	1	224471502T	
D4902	ZENER D	MTZJ15B	1	224471502T	
D6800	DIODE	1SS133	1	223163T	
D6802	DIODE	1SS133	1	223163T	
D6803	DIODE	1SS133	1	223163T	
D6805	DIODE	1SS133	1	223163T	
D6817	DIODE	1SS133	1	223163T	
D9000	DIODE	1SS133	1	223163T	
D9001	DIODE	1SS133	1	223163T	
D9002	DIODE	1SS133	1	223163T	
D9003	DIODE	1SS133	1	223163T	
D9004	DIODE	RL1N4003	1	22380260T	
D9004 or	DIODE	GP104003E	(1)	22380035T	
D9005	DIODE	1SS133	1	223163T	
D9006	DIODE	1SS133	1	223163T	
D9007	ZENER D	MTZJ5.1B	1	224470512T	
D9008	DIODE	1SS133	1	223163T	
D9009	DIODE	1SS133	1	223163T	
D9100	DIODE	1SS133	1	223163T	<DC>
D9101	DIODE	1SS133	1	223163T	

D9103	DIODE	D10XB60H	1	22380337F	
D9105	DIODE	D3SBA20	1	22380271F	
L6800	S COIL	S-1.3C	1	231176S	
L6801	S COIL	S-1.3C	1	231176S	
L6802	S COIL	S-1.3C	1	231176S	
L6803	S COIL	S-1.3C	1	231176S	
L6804	S COIL	S-1.3C	1	231176S	
L6805	S COIL	S-1.3C	1	231176S	
L6806	S COIL	S-1.3C	1	231176S	
T9000	P TRANS	NPT-1520JQ	1	2301812	!, <DC, DT>
T9000	P TRANS	NPT-1520GQ	1	2301813	!, <MP, MA, MK, M
C4901	UTSP C	CE04W25V-100M(UTSP)	1	397551017T	
C4902	UTSP C	CE04W25V-100M(UTSP)	1	397551017T	
C4903	UTSP C	CE04W25V-100M(UTSP)	1	397551017T	
C4904	UTSP C	CE04W25V-100M(UTSP)	1	397551017T	
C6800	TF C	ECQ-B50V-103J	1	374721034T	
C6801	TF C	ECQ-B50V-103J	1	374721034T	
C6802	TF C	ECQ-B50V-103J	1	374721034T	
C6803	TF C	ECQ-B50V-103J	1	374721034T	
C6805	TF C	ECQ-B50V-103J	1	374721034T	
C6806	TF C	ECQ-B50V-103J	1	374721034T	
C6817	TF C	ECQ-B50V-102J	1	374721024T	<DT, MP, MA, MK,
C6818	TF C	ECQ-B50V-102J	1	374721024T	<DT, MP, MA, MK,
C6820	TF C	ECQ-B50V-103J	1	374721034T	<DT, MP, MA, MK,
C6821	TF C	ECQ-B50V-103J	1	374721034T	<DT, MP, MA, MK,
C6822	TF C	ECQ-B50V-103J	1	374721034T	<DT, MP, MA, MK,
C6823	TF C	ECQ-B50V-103J	1	374721034T	<DT, MP, MA, MK,
C6824	TF C	ECQ-B50V-103J	1	374721034T	<DT, MP, MA, MK,
C6825	TF C	ECQ-B50V-103J	1	374721034T	<DT, MP, MA, MK,
C6826	TF C	ECQ-B50V-103J	1	374721034T	<DT, MP, MA, MK,
C6827	TF C	ECQ-B50V-103J	1	374721034T	<DT, MP, MA, MK,
C6828	TF C	ECQ-B50V-103J	1	374721034T	<DT, MP, MA, MK,
C6837	TF C	ECQ-B50V-103J	1	374721034T	
C9000	TF C	ECQ-B50V-223J	1	374722234T	
C9001	VR C	CE04W25V-2200M(VR)	1	394652227S	
C9002	UTSP C	CE04W50V-4.7M(UTSP)	1	397580477T	
C9008	UTSP C	CE04W25V-100M(UTSP)	1	397551017T	
C9102	VR C	CE04W25V-4700M(VR)	1	394654727S	
C9103	VR C	CE04W25V-4700M(VR)	1	394654727S	
C9104	VR C	CE04W16V-4700M(VR)	1	394644727S	
C9106	UTSP C	CE04W50V-1M(UTSP)	1	397580107T	<DC, DT, MP, MA,
C9107	UTSP C	CE04W25V-220M(UTSP)	1	397552217T	<DC, DT, MP, MA,
C9108	PLA C	MKP R46 104M	1	3800041S	
C9115	TF C	ECQ-B50V-103J	1	374721034T	<DC>
C9116	TF C	ECQ-B50V-103J	1	374721034T	
C9117	TF C	ECQ-V50V-104J	1	374721044T	
C9118	TF C	ECQ-V50V-104J	1	374721044T	
C9119	TF C	ECQ-B50V-223J	1	374722234T	
R4901	METAL R	RNU1/2WCJ-0.22	1	453532294T	
R4902	METAL R	RNU1/2WCJ-0.22	1	453532294T	
R4907	CARBON R	R16J-330	1	417343314T	
R4908	CARBON R	R16J-330	1	417343314T	
R6800	CARBON R	R16J-22	1	417342204T	
R6801	CARBON R	R16J-22	1	417342204T	
R6802	CARBON R	R16J-22	1	417342204T	
R6803	CARBON R	R16J-22	1	417342204T	
R6804	CARBON R	R16J-22	1	417342204T	
R6805	CARBON R	R16J-22	1	417342204T	
R6806	CARBON R	R16J-22	1	417342204T	
R6810	CARBON R	R16J-22	1	417342204T	
R6811	CARBON R	R16J-22	1	417342204T	
R6812	CARBON R	R16J-22	1	417342204T	
R6813	CARBON R	R16J-22	1	417342204T	
R6814	CARBON R	R16J-22	1	417342204T	
R6815	CARBON R	R16J-22	1	417342204T	
R6816	CARBON R	R16J-22	1	417342204T	
R6900	METAL O R	RS1WBJ-15	1	443621504T	
R6901	METAL O R	RS1WBJ-15	1	443621504T	
R9005	CARBON R	R16J-22	1	417342204T	
R9104	CARBON R	R16J-1K	1	417341024T	<DC>
R9105	CARBON R	R16J-100K	1	417341044T	<DC>
R9106	CARBON R	R16J-100	1	417341014T	<DC>
R9107	CARBON R	R16J-1K	1	417341024T	
R9108	CARBON R	R16J-100K	1	417341044T	
R9111	CARBON R	R16J-56	1	417345604T	
R9112	METAL R	RNU1/2WCJ-0.22	1	453532294T	
E9000	TRM(SCREW)	NEJITANSI M3	1	25065425	<DT, MA, MK, MQ
E9000	TRM(SCREW)	NEJITANSI M3	1	25065425	<SA805>
E9100	TRM(SCREW)	NEJITANSI M3	1	25065425	
F9000A	FUSE HOL	NSCT-1P2031	1	25052133T	!, <DC>
F9000A	FUSE HOL	NSCT-1P2031	1	25052133T	!, <MP>
F9000B	FUSE HOL	NSCT-1P2031	1	25052133T	!, <DC>
F9000B	FUSE HOL	NSCT-1P2031	1	25052133T	!, <MP>
F9000C	LABEL	T2.5AL250V	1	29361747	!, <MP>
F9100A	FUSE HOLDER	SN5051	1	250113	!, <DC, DT>
F9100A	FUSE HOL	NSCT-1P2031	1	25052133T	!, <MP, MA, MK, M

F9100A	FUSE HOL	NSCT-1P2031	1	25052133T	!, <SA805>
F9100B	FUSE HOLDER	SN5051	1	250113	!, <DC, DT>
F9100B	FUSE HOL	NSCT-1P2031	1	25052133T	!, <MP, MA, MK, M
F9100B	FUSE HOL	NSCT-1P2031	1	25052133T	!, <SA805>
F9100C	LABEL	T6.3AL/250V	1	29361681	!, <MP, MA, MK, M
F9100C	LABEL	T6.3AL/250V	1	29361681	!, <SA805>
F9101A	FUSE HOL	NSCT-1P2031	1	25052133T	!
F9101B	FUSE HOL	NSCT-1P2031	1	25052133T	!
F9102A	FUSE HOL	NSCT-1P2031	1	25052133T	!
F9102B	FUSE HOL	NSCT-1P2031	1	25052133T	!
JL2601A	WIRE HOL	NSCT-3P874	1	25051087	
JL4014A	WIRE HOL	NSCT-6P897	1	25051110	
JL6808A	WIRE HOL	NSCT-4P895	1	25051108	
JL6808B	SOCKET	NSCT-4P96	1	25050268	
JL6900B	SOCKET	NSCT-3P108	1	25050280	
JL6901A	WIRE HOL	NSCT-8P879	1	25051092	
JL6901B	WIRE TRAP	NPLG-8P591	1	25055629	
JL901A	WIRE HOL	NSCT-7P878	1	25051091	
P3101B	SOCKET	IMSA-9142S-24A	1	25053234	
P3102B	SOCKET	IMSA-9142S-14A	1	25053229	
P3103B	SOCKET	IMSA-9142S-16A	1	25053230	
P4900	RETAINER	(JOINT)	1	27142069	
P6140H	PLUG	NPLG-7P163	1	25055179	
P6240D	PLUG	NPLG-3P838	1	25055882	
P6250E	PLUG	NPLG-4P839	1	25055883	
P6800	TRM	NTM-2PDMCW403	1	25060475	
P6801	TRM	NTM-2PDMCR400	1	25060472	
P6802	TRM	NTM-2PDMCG404	1	25060476	
P6803	TRM	NTM-2PDMCL405	1	25060477	
P6804	TRM	NTM-2PDMCE406	1	25060478	
P6805	TRM	NTM-2PDMCN407	1	25060479	
P6806	TRM	NTM-2PDMCT408	1	25060480	
P6807	TRM	NTM-2PDMCW403	1	25060475	
P6808	TRM	NTM-2PDMCR400	1	25060472	
P6851B	SOCKET	IMSA-9142S-20A	1	25053232	
P6852B	SOCKET	IMSA-9142S-20A	1	25053232	
P6853B	SOCKET	IMSA-9142S-20A	1	25053232	
P9000	AC INLET	NPLG-2P913	1	25055960	!
P9001	AC OUTLET	AC-181-UL-11V	1	25053030	!, <DC>
P9001	SOCKET	NSCT-2P1359	1	25051572	!, <MP>
P9006	CRIMP AS	CRIMP AS	1	206CC45159UL	
P9007	CRIMP AS	CRIMP AS	1	206CC45150UL	
P9008A	PLUG	NPLG-2P631	1	25055675	!, <DT, MP, MA, M
P9100	PLUG	NPLG-2P632	1	25055676	!
P9104	PLUG	NPLG-6P120	1	25055136	
RL6800	RELAY	NRL-2P5A-DC12-187	1	25065685	
RL6800 or	RELAY	NRL-2P5A-DC12-155	(1)	25065607	
RL6801	RELAY	NRL-2P5A-DC12-187	1	25065685	
RL6801 or	RELAY	NRL-2P5A-DC12-155	(1)	25065607	
RL6802	RELAY	NRL-2P5A-DC12-187	1	25065685	
RL6802 or	RELAY	NRL-2P5A-DC12-155	(1)	25065607	
RL6803	RELAY	NRL-2P5A-DC12-187	1	25065685	
RL6803 or	RELAY	NRL-2P5A-DC12-155	(1)	25065607	
RL6805	RELAY	NRL-2P5A-DC12-187	1	25065685	
RL6805 or	RELAY	NRL-2P5A-DC12-155	(1)	25065607	
RL6806	RELAY	NRL-2P5A-DC12-187	1	25065685	
RL6806 or	RELAY	NRL-2P5A-DC12-155	(1)	25065607	
RL6817	RELAY	NRL-2P5A-DC12-187	1	25065685	
RL6817 or	RELAY	NRL-2P5A-DC12-155	(1)	25065607	
RL9100	RELAY	NRL-1P10A-DC9-186	1	25065683	<DC>
RL9101	RELAY	NRL-1P10A-DC9-186	1	25065683	

U16 **POWER AMP PC BOARD (NAAMP-9061-1A/1B)**
U17 **POWER AMP PC BOARD (NAAMP-9062-1A/1B)**
U18 **DRIVER AMP PC BOARD (NACLA-9063-1A/1B)**
U19 **DRIVER AMP PC BOARD (NACLA-9064-1A/1B)**
U20 **DRIVER AMP PC BOARD (NACLA-9065-1A/1B)**
U21 **DRIVER AMP PC BOARD (NACLA-9066-1A/1B)**
U22 **DRIVER AMP PC BOARD (NACLA-9067-1A/1B)**
U23 **DRIVER AMP PC BOARD (NACLA-9068-1A/1B)**
U24 **DRIVER AMP PC BOARD (NACLA-9069-1A/1B)**

REF. NO.	PART NAME	DESCRIPTION	Q'TY	PART NO. (SN)	REMARKS
Q5000	TR	2SC2240-BL(TPE2_F)	1	2211406T	
Q5001	TR	2SC2240-BL(TPE2_F)	1	2211406T	
Q5002	TR	2SC2240-BL(TPE2_F)	1	2211406T	
Q5003	TR	2SC2240-BL(TPE2_F)	1	2211406T	
Q5004	TR	2SC2240-BL(TPE2_F)	1	2211406T	
Q5005	TR	2SC2240-BL(TPE2_F)	1	2211406T	
Q5006	TR	2SC2240-BL(TPE2_F)	1	2211406T	
Q5010	TR	2SC2240-BL(TPE2_F)	1	2211406T	
Q5011	TR	2SC2240-BL(TPE2_F)	1	2211406T	
Q5012	TR	2SC2240-BL(TPE2_F)	1	2211406T	
Q5013	TR	2SC2240-BL(TPE2_F)	1	2211406T	
Q5014	TR	2SC2240-BL(TPE2_F)	1	2211406T	
Q5015	TR	2SC2240-BL(TPE2_F)	1	2211406T	

Q5016	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5020	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5021	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5022	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5023	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5024	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5025	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5026	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5030	TR	2SA949-O(TPE6_F)	1	2211353T
Q5030 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q5031	TR	2SA949-O(TPE6_F)	1	2211353T
Q5031 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q5032	TR	2SA949-O(TPE6_F)	1	2211353T
Q5032 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q5033	TR	2SA949-O(TPE6_F)	1	2211353T
Q5033 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q5034	TR	2SA949-O(TPE6_F)	1	2211353T
Q5034 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q5035	TR	2SA949-O(TPE6_F)	1	2211353T
Q5035 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q5036	TR	2SA949-O(TPE6_F)	1	2211353T
Q5036 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q5040	TR	2SA949-O(TPE6_F)	1	2211353T
Q5040 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q5041	TR	2SA949-O(TPE6_F)	1	2211353T
Q5041 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q5042	TR	2SA949-O(TPE6_F)	1	2211353T
Q5042 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q5043	TR	2SA949-O(TPE6_F)	1	2211353T
Q5043 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q5044	TR	2SA949-O(TPE6_F)	1	2211353T
Q5044 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q5045	TR	2SA949-O(TPE6_F)	1	2211353T
Q5045 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q5046	TR	2SA949-O(TPE6_F)	1	2211353T
Q5046 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q5050	TR	2SA1360-Y	1	2202094
Q5050 or	TR	2SA1360-O	(1)	2202093
Q5050A	HEAT SINK	RAD-177	1	27160517
Q5050B	SCREW	3P+6FN(3BC)	1	82143006GR
Q5051	TR	2SA1360-Y	1	2202094
Q5051 or	TR	2SA1360-O	(1)	2202093
Q5051A	HEAT SINK	RAD-177	1	27160517
Q5051B	SCREW	3P+6FN(3BC)	1	82143006GR
Q5052	TR	2SA1360-Y	1	2202094
Q5052 or	TR	2SA1360-O	(1)	2202093
Q5052A	HEAT SINK	RAD-177	1	27160517
Q5052B	SCREW	3P+6FN(3BC)	1	82143006GR
Q5053	TR	2SA1360-Y	1	2202094
Q5053 or	TR	2SA1360-O	(1)	2202093
Q5053A	HEAT SINK	RAD-177	1	27160517
Q5053B	SCREW	3P+6FN(3BC)	1	82143006GR
Q5054	TR	2SA1360-Y	1	2202094
Q5054 or	TR	2SA1360-O	(1)	2202093
Q5054A	HEAT SINK	RAD-177	1	27160517
Q5054B	SCREW	3P+6FN(3BC)	1	82143006GR
Q5055	TR	2SA1360-Y	1	2202094
Q5055 or	TR	2SA1360-O	(1)	2202093
Q5055A	HEAT SINK	RAD-177	1	27160517
Q5055B	SCREW	3P+6FN(3BC)	1	82143006GR
Q5056	TR	2SA1360-Y	1	2202094
Q5056 or	TR	2SA1360-O	(1)	2202093
Q5056A	HEAT SINK	RAD-177	1	27160517
Q5056B	SCREW	3P+6FN(3BC)	1	82143006GR
Q5060	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5061	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5062	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5063	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5064	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5065	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5066	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5070	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5071	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5072	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5073	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5074	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5075	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5076	TR	2SC2240-BL(TPE2_F)	1	2211406T
Q5080	TR	2SC3423-Y	1	2202104
Q5080 or	TR	2SC3423-O	(1)	2202103
Q5080B	SCREW	3P+6FN(3BC)	1	82143006GR
Q5081	TR	2SC3423-Y	1	2202104
Q5081 or	TR	2SC3423-O	(1)	2202103
Q5081B	SCREW	3P+6FN(3BC)	1	82143006GR
Q5082	TR	2SC3423-Y	1	2202104
Q5082 or	TR	2SC3423-O	(1)	2202103

Q5082B	SCREW	3P+6FN(3BC)	1	82143006GR
Q5083	TR	2SC3423-Y	1	2202104
Q5083 or	TR	2SC3423-O	(1)	2202103
Q5083B	SCREW	3P+6FN(3BC)	1	82143006GR
Q5084	TR	2SC3423-Y	1	2202104
Q5084 or	TR	2SC3423-O	(1)	2202103
Q5084B	SCREW	3P+6FN(3BC)	1	82143006GR
Q5085	TR	2SC3423-Y	1	2202104
Q5085 or	TR	2SC3423-O	(1)	2202103
Q5085B	SCREW	3P+6FN(3BC)	1	82143006GR
Q5086	TR	2SC3423-Y	1	2202104
Q5086 or	TR	2SC3423-O	(1)	2202103
Q5086B	SCREW	3P+6FN(3BC)	1	82143006GR
Q6010	TR	2SC1740S-S	1	2213285T
Q6011	TR	2SC1740S-S	1	2213285T
Q6012	TR	2SC1740S-S	1	2213285T
Q6013	TR	2SC1740S-S	1	2213285T
Q6014	TR	2SC1740S-S	1	2213285T
Q6015	TR	2SC1740S-S	1	2213285T
Q6016	TR	2SC1740S-S	1	2213285T
Q6020	TR	2SA933S-R	1	2213354T
Q6020 or	TR	2SA1048-GR	(1)	2212125T
Q6020 or	TR	2SA933S-S	(1)	2213355T
Q6020 or	TR	KTA1267-GR	(1)	2215995T
Q6021	TR	2SA933S-R	1	2213354T
Q6021 or	TR	2SA1048-GR	(1)	2212125T
Q6021 or	TR	2SA933S-S	(1)	2213355T
Q6021 or	TR	KTA1267-GR	(1)	2215995T
Q6022	TR	2SA933S-R	1	2213354T
Q6022 or	TR	2SA1048-GR	(1)	2212125T
Q6022 or	TR	2SA933S-S	(1)	2213355T
Q6022 or	TR	KTA1267-GR	(1)	2215995T
Q6023	TR	2SA933S-R	1	2213354T
Q6023 or	TR	2SA1048-GR	(1)	2212125T
Q6023 or	TR	2SA933S-S	(1)	2213355T
Q6023 or	TR	KTA1267-GR	(1)	2215995T
Q6024	TR	2SA933S-R	1	2213354T
Q6024 or	TR	2SA1048-GR	(1)	2212125T
Q6024 or	TR	2SA933S-S	(1)	2213355T
Q6024 or	TR	KTA1267-GR	(1)	2215995T
Q6025	TR	2SA933S-R	1	2213354T
Q6025 or	TR	2SA1048-GR	(1)	2212125T
Q6025 or	TR	2SA933S-S	(1)	2213355T
Q6025 or	TR	KTA1267-GR	(1)	2215995T
Q6026	TR	2SA933S-R	1	2213354T
Q6026 or	TR	2SA1048-GR	(1)	2212125T
Q6026 or	TR	2SA933S-S	(1)	2213355T
Q6026 or	TR	KTA1267-GR	(1)	2215995T
Q6030	TR	2SC2229-O(TPE6_F)	1	2211633T
Q6030 or	TR	2SC2229-Y(TPE6_F)	(1)	2211634T
Q6031	TR	2SC2229-O(TPE6_F)	1	2211633T
Q6031 or	TR	2SC2229-Y(TPE6_F)	(1)	2211634T
Q6032	TR	2SC2229-O(TPE6_F)	1	2211633T
Q6032 or	TR	2SC2229-Y(TPE6_F)	(1)	2211634T
Q6033	TR	2SC2229-O(TPE6_F)	1	2211633T
Q6033 or	TR	2SC2229-Y(TPE6_F)	(1)	2211634T
Q6034	TR	2SC2229-O(TPE6_F)	1	2211633T
Q6034 or	TR	2SC2229-Y(TPE6_F)	(1)	2211634T
Q6035	TR	2SC2229-O(TPE6_F)	1	2211633T
Q6035 or	TR	2SC2229-Y(TPE6_F)	(1)	2211634T
Q6036	TR	2SC2229-O(TPE6_F)	1	2211633T
Q6036 or	TR	2SC2229-Y(TPE6_F)	(1)	2211634T
Q6040	TR	2SA949-O(TPE6_F)	1	2211353T
Q6040 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q6041	TR	2SA949-O(TPE6_F)	1	2211353T
Q6041 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q6042	TR	2SA949-O(TPE6_F)	1	2211353T
Q6042 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q6043	TR	2SA949-O(TPE6_F)	1	2211353T
Q6043 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q6044	TR	2SA949-O(TPE6_F)	1	2211353T
Q6044 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q6045	TR	2SA949-O(TPE6_F)	1	2211353T
Q6045 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q6046	TR	2SA949-O(TPE6_F)	1	2211353T
Q6046 or	TR	2SA949-Y(TPE6_F)	(1)	2211354T
Q6070	TR	2SC2631-R	1	2214984T
Q6070 or	TR	2SC2631-S	(1)	2214985T
Q6071	TR	2SC2631-R	1	2214984T
Q6071 or	TR	2SC2631-S	(1)	2214985T
Q6072	TR	2SC2631-R	1	2214984T
Q6072 or	TR	2SC2631-S	(1)	2214985T
Q6073	TR	2SC2631-R	1	2214984T
Q6073 or	TR	2SC2631-S	(1)	2214985T
Q6074	TR	2SC2631-R	1	2214984T
Q6074 or	TR	2SC2631-S	(1)	2214985T

Q6075	TR	2SC2631-R	1	2214984T
Q6075 or	TR	2SC2631-S	(1)	2214985T
Q6076	TR	2SC2631-R	1	2214984T
Q6076 or	TR	2SC2631-S	(1)	2214985T
Q6100	TR	2SA1930(ONK_Q)	1	2203000
Q6100A	HEAT SINK	RAD-177	1	27160517
Q6100B	SCREW	3P+6FN(3BC)	2	82143006GR
Q6101	TR	2SA1930(ONK_Q)	1	2203000
Q6101A	HEAT SINK	RAD-177	1	27160517
Q6101B	SCREW	3P+6FN(3BC)	2	82143006GR
Q6102	TR	2SA1930(ONK_Q)	1	2203000
Q6102A	HEAT SINK	RAD-177	1	27160517
Q6102B	SCREW	3P+6FN(3BC)	2	82143006GR
Q6103	TR	2SA1930(ONK_Q)	1	2203000
Q6103A	HEAT SINK	RAD-177	1	27160517
Q6103B	SCREW	3P+6FN(3BC)	2	82143006GR
Q6104	TR	2SA1930(ONK_Q)	1	2203000
Q6104A	HEAT SINK	RAD-177	1	27160517
Q6104B	SCREW	3P+6FN(3BC)	2	82143006GR
Q6105	TR	2SA1930(ONK_Q)	1	2203000
Q6105A	HEAT SINK	RAD-177	1	27160517
Q6105B	SCREW	3P+6FN(3BC)	2	82143006GR
Q6106	TR	2SA1930(ONK_Q)	1	2203000
Q6106A	HEAT SINK	RAD-177	1	27160517
Q6106B	SCREW	3P+6FN(3BC)	2	82143006GR
Q6110	TR	2SC5171(ONK_Q)	1	2203010
Q6111	TR	2SC5171(ONK_Q)	1	2203010
Q6112	TR	2SC5171(ONK_Q)	1	2203010
Q6113	TR	2SC5171(ONK_Q)	1	2203010
Q6114	TR	2SC5171(ONK_Q)	1	2203010
Q6115	TR	2SC5171(ONK_Q)	1	2203010
Q6116	TR	2SC5171(ONK_Q)	1	2203010
D5000	ZENER D	MTZJ5.6B	1	224470562T
D5001	ZENER D	MTZJ5.6B	1	224470562T
D5002	ZENER D	MTZJ5.6B	1	224470562T
D5003	ZENER D	MTZJ5.6B	1	224470562T
D5004	ZENER D	MTZJ5.6B	1	224470562T
D5005	ZENER D	MTZJ5.6B	1	224470562T
D5006	ZENER D	MTZJ5.6B	1	224470562T
D6000	DIODE	1SS133	1	223163T
D6001	DIODE	1SS133	1	223163T
D6002	DIODE	1SS133	1	223163T
D6003	DIODE	1SS133	1	223163T
D6004	DIODE	1SS133	1	223163T
D6005	DIODE	1SS133	1	223163T
D6006	DIODE	1SS133	1	223163T
L6000	FR CORE	*	1	5597-45502
L6001	FR CORE	*	1	5597-45502
L6002	FR CORE	*	1	5597-45502
L6003	FR CORE	*	1	5597-45502
L6004	FR CORE	*	1	5597-45502
L6005	FR CORE	*	1	5597-45502
L6006	FR CORE	*	1	5597-45502
L6010	FR CORE	*	1	5597-45502
L6011	FR CORE	*	1	5597-45502
L6012	FR CORE	*	1	5597-45502
L6013	FR CORE	*	1	5597-45502
L6014	FR CORE	*	1	5597-45502
L6015	FR CORE	*	1	5597-45502
L6016	FR CORE	*	1	5597-45502
C5010	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C5011	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C5012	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C5013	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C5014	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C5015	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C5016	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C5020	TF C	ECQ-B50V-471J	1	374724714T
C5021	TF C	ECQ-B50V-471J	1	374724714T
C5022	TF C	ECQ-B50V-471J	1	374724714T
C5023	TF C	ECQ-B50V-471J	1	374724714T
C5024	TF C	ECQ-B50V-471J	1	374724714T
C5025	TF C	ECQ-B50V-471J	1	374724714T
C5026	TF C	ECQ-B50V-471J	1	374724714T
C5040	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C5041	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C5042	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C5043	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C5044	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C5045	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C5046	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C5050	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C5051	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C5052	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C5053	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C5054	UTSP C	CE04W50V-10M(UTSP)	1	397581007T

C5055	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C5056	UTSP C	CE04W50V-10M(UTSP)	1	397581007T
C5070	VX C	CE04W100V-10M(VX_BLK)	1	397391007T
C5071	VX C	CE04W100V-10M(VX_BLK)	1	397391007T
C5072	VX C	CE04W100V-10M(VX_BLK)	1	397391007T
C5073	VX C	CE04W100V-10M(VX_BLK)	1	397391007T
C5074	VX C	CE04W100V-10M(VX_BLK)	1	397391007T
C5075	VX C	CE04W100V-10M(VX_BLK)	1	397391007T
C5076	VX C	CE04W100V-10M(VX_BLK)	1	397391007T
C5080	VX C	CE04W63V-22M(VX_BLK)	1	397372207T
C5081	VX C	CE04W63V-22M(VX_BLK)	1	397372207T
C5082	VX C	CE04W63V-22M(VX_BLK)	1	397372207T
C5083	VX C	CE04W63V-22M(VX_BLK)	1	397372207T
C5084	VX C	CE04W63V-22M(VX_BLK)	1	397372207T
C5085	VX C	CE04W63V-22M(VX_BLK)	1	397372207T
C5086	VX C	CE04W63V-22M(VX_BLK)	1	397372207T
C5100	TF C	ECQ-B50V-101K	1	374721015T
C5101	TF C	ECQ-B50V-101K	1	374721015T
C5102	TF C	ECQ-B50V-101K	1	374721015T
C5103	TF C	ECQ-B50V-101K	1	374721015T
C5104	TF C	ECQ-B50V-101K	1	374721015T
C5105	TF C	ECQ-B50V-101K	1	374721015T
C5106	TF C	ECQ-B50V-101K	1	374721015T
C5110	CERA C	CC45CH50V-010C	1	345340101T
C5111	CERA C	CC45CH50V-010C	1	345340101T
C5112	CERA C	CC45CH50V-010C	1	345340101T
C5113	CERA C	CC45CH50V-010C	1	345340101T
C5114	CERA C	CC45CH50V-010C	1	345340101T
C5115	CERA C	CC45CH50V-010C	1	345340101T
C5116	CERA C	CC45CH50V-010C	1	345340101T
C5120	VR C	CE04W100V-100M(VR)	1	394691017S
C5121	VR C	CE04W100V-100M(VR)	1	394691017S
C5122	VR C	CE04W100V-100M(VR)	1	394691017S
C5123	VR C	CE04W100V-100M(VR)	1	394691017S
C5124	VR C	CE04W100V-100M(VR)	1	394691017S
C5125	VR C	CE04W100V-100M(VR)	1	394691017S
C5126	VR C	CE04W100V-100M(VR)	1	394691017S
C5130	VR C	CE04W100V-100M(VR)	1	394691017S
C5131	VR C	CE04W100V-100M(VR)	1	394691017S
C5132	VR C	CE04W100V-100M(VR)	1	394691017S
C5133	VR C	CE04W100V-100M(VR)	1	394691017S
C5134	VR C	CE04W100V-100M(VR)	1	394691017S
C5135	VR C	CE04W100V-100M(VR)	1	394691017S
C5136	VR C	CE04W100V-100M(VR)	1	394691017S
C6000	TF C	ECQ-B50V-102J	1	374721024T
C6001	TF C	ECQ-B50V-102J	1	374721024T
C6002	TF C	ECQ-B50V-102J	1	374721024T
C6003	TF C	ECQ-B50V-102J	1	374721024T
C6004	TF C	ECQ-B50V-102J	1	374721024T
C6005	TF C	ECQ-B50V-102J	1	374721024T
C6006	TF C	ECQ-B50V-102J	1	374721024T
C6010	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C6011	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C6012	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C6013	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C6014	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C6015	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C6016	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C6020	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C6021	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C6022	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C6023	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C6024	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C6025	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C6026	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C6040	TF C	ECQ-B50V-223J	1	374722234T
C6041	TF C	ECQ-B50V-223J	1	374722234T
C6042	TF C	ECQ-B50V-223J	1	374722234T
C6043	TF C	ECQ-B50V-223J	1	374722234T
C6044	TF C	ECQ-B50V-223J	1	374722234T
C6045	TF C	ECQ-B50V-223J	1	374722234T
C6046	TF C	ECQ-B50V-223J	1	374722234T
R5000	CARBON R	R16J-1K	1	417341024T
R5001	CARBON R	R16J-1K	1	417341024T
R5002	CARBON R	R16J-1K	1	417341024T
R5003	CARBON R	R16J-1K	1	417341024T
R5004	CARBON R	R16J-1K	1	417341024T
R5005	CARBON R	R16J-1K	1	417341024T
R5006	CARBON R	R16J-1K	1	417341024T
R5010	CARBON R	R16J-56K	1	417345634T
R5011	CARBON R	R16J-56K	1	417345634T
R5012	CARBON R	R16J-56K	1	417345634T
R5013	CARBON R	R16J-56K	1	417345634T
R5014	CARBON R	R16J-56K	1	417345634T
R5015	CARBON R	R16J-56K	1	417345634T
R5016	CARBON R	R16J-56K	1	417345634T

R5020	CARBON R	R16J-330	1	417343314T
R5021	CARBON R	R16J-330	1	417343314T
R5022	CARBON R	R16J-330	1	417343314T
R5023	CARBON R	R16J-330	1	417343314T
R5024	CARBON R	R16J-330	1	417343314T
R5025	CARBON R	R16J-330	1	417343314T
R5026	CARBON R	R16J-330	1	417343314T
R5030	CARBON R	R16J-330	1	417343314T
R5031	CARBON R	R16J-330	1	417343314T
R5032	CARBON R	R16J-330	1	417343314T
R5033	CARBON R	R16J-330	1	417343314T
R5034	CARBON R	R16J-330	1	417343314T
R5035	CARBON R	R16J-330	1	417343314T
R5036	CARBON R	R16J-330	1	417343314T
R5040	CARBON R	R16J-330	1	417343314T
R5041	CARBON R	R16J-330	1	417343314T
R5042	CARBON R	R16J-330	1	417343314T
R5043	CARBON R	R16J-330	1	417343314T
R5044	CARBON R	R16J-330	1	417343314T
R5045	CARBON R	R16J-330	1	417343314T
R5046	CARBON R	R16J-330	1	417343314T
R5050	CARBON R	R16J-5.6K	1	417345624T
R5051	CARBON R	R16J-5.6K	1	417345624T
R5052	CARBON R	R16J-5.6K	1	417345624T
R5053	CARBON R	R16J-5.6K	1	417345624T
R5054	CARBON R	R16J-5.6K	1	417345624T
R5055	CARBON R	R16J-5.6K	1	417345624T
R5056	CARBON R	R16J-5.6K	1	417345624T
R5060	CARBON R	R16J-2.7K	1	417342724T
R5061	CARBON R	R16J-2.7K	1	417342724T
R5062	CARBON R	R16J-2.7K	1	417342724T
R5063	CARBON R	R16J-2.7K	1	417342724T
R5064	CARBON R	R16J-2.7K	1	417342724T
R5065	CARBON R	R16J-2.7K	1	417342724T
R5066	CARBON R	R16J-2.7K	1	417342724T
R5070	CARBON R	R16J-100K	1	417341044T
R5071	CARBON R	R16J-100K	1	417341044T
R5072	CARBON R	R16J-100K	1	417341044T
R5073	CARBON R	R16J-100K	1	417341044T
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R5075	CARBON R	R16J-100K	1	417341044T
R5076	CARBON R	R16J-100K	1	417341044T
R5090	CARBON R	R16J-1.8K	1	417341824T
R5091	CARBON R	R16J-1.8K	1	417341824T
R5092	CARBON R	R16J-1.8K	1	417341824T
R5093	CARBON R	R16J-1.8K	1	417341824T
R5094	CARBON R	R16J-1.8K	1	417341824T
R5095	CARBON R	R16J-1.8K	1	417341824T
R5096	CARBON R	R16J-1.8K	1	417341824T
R5110	CARBON R	R16J-2.2K	1	417342224T
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R5112	CARBON R	R16J-2.2K	1	417342224T
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R5116	CARBON R	R16J-2.2K	1	417342224T
R5120	CARBON R	R16J-2.2K	1	417342224T
R5121	CARBON R	R16J-2.2K	1	417342224T
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R5123	CARBON R	R16J-2.2K	1	417342224T
R5124	CARBON R	R16J-2.2K	1	417342224T
R5125	CARBON R	R16J-2.2K	1	417342224T
R5126	CARBON R	R16J-2.2K	1	417342224T
R5130	NF CARBON R	R25J-820	1	415478214T
R5131	NF CARBON R	R25J-820	1	415478214T
R5132	NF CARBON R	R25J-820	1	415478214T
R5133	NF CARBON R	R25J-820	1	415478214T
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R5135	NF CARBON R	R25J-820	1	415478214T
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R5141	NF CARBON R	R25J-820	1	415478214T
R5142	NF CARBON R	R25J-820	1	415478214T
R5143	NF CARBON R	R25J-820	1	415478214T
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R5145	NF CARBON R	R25J-820	1	415478214T
R5146	NF CARBON R	R25J-820	1	415478214T
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R5151	METAL O R	RS1/2WBJ-10K	1	443521034T
R5152	METAL O R	RS1/2WBJ-10K	1	443521034T
R5153	METAL O R	RS1/2WBJ-10K	1	443521034T
R5154	METAL O R	RS1/2WBJ-10K	1	443521034T
R5155	METAL O R	RS1/2WBJ-10K	1	443521034T
R5156	METAL O R	RS1/2WBJ-10K	1	443521034T
R5160	NF CARBON R	R25J-1.0K	1	415471024T
R5161	NF CARBON R	R25J-1.0K	1	415471024T

R5162	NF CARBON R	R25J-1.0K	1	415471024T
R5163	NF CARBON R	R25J-1.0K	1	415471024T
R5164	NF CARBON R	R25J-1.0K	1	415471024T
R5165	NF CARBON R	R25J-1.0K	1	415471024T
R5166	NF CARBON R	R25J-1.0K	1	415471024T
R5170	NF CARBON R	R25J-820	1	415478214T
R5171	NF CARBON R	R25J-820	1	415478214T
R5172	NF CARBON R	R25J-820	1	415478214T
R5173	NF CARBON R	R25J-820	1	415478214T
R5174	NF CARBON R	R25J-820	1	415478214T
R5175	NF CARBON R	R25J-820	1	415478214T
R5176	NF CARBON R	R25J-820	1	415478214T
R5180	NF CARBON R	R25J-33	1	415473304T
R5181	NF CARBON R	R25J-33	1	415473304T
R5182	NF CARBON R	R25J-33	1	415473304T
R5183	NF CARBON R	R25J-33	1	415473304T
R5184	NF CARBON R	R25J-33	1	415473304T
R5185	NF CARBON R	R25J-33	1	415473304T
R5186	NF CARBON R	R25J-33	1	415473304T
R5210	CARBON R	R16J-18K	1	417341834T
R5211	CARBON R	R16J-18K	1	417341834T
R5212	CARBON R	R16J-18K	1	417341834T
R5213	CARBON R	R16J-18K	1	417341834T
R5214	CARBON R	R16J-18K	1	417341834T
R5215	CARBON R	R16J-18K	1	417341834T
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R5220	CARBON R	R16J-18K	1	417341834T
R5221	CARBON R	R16J-18K	1	417341834T
R5222	CARBON R	R16J-18K	1	417341834T
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R5224	CARBON R	R16J-18K	1	417341834T
R5225	CARBON R	R16J-18K	1	417341834T
R5226	CARBON R	R16J-18K	1	417341834T
R5230	NF CARBON R	R25J-15	1	415471504T
R5231	NF CARBON R	R25J-15	1	415471504T
R5232	NF CARBON R	R25J-15	1	415471504T
R5233	NF CARBON R	R25J-15	1	415471504T
R5234	NF CARBON R	R25J-15	1	415471504T
R5235	NF CARBON R	R25J-15	1	415471504T
R5236	NF CARBON R	R25J-15	1	415471504T
R5240	NF CARBON R	R25J-15	1	415471504T
R5241	NF CARBON R	R25J-15	1	415471504T
R5242	NF CARBON R	R25J-15	1	415471504T
R5243	NF CARBON R	R25J-15	1	415471504T
R5244	NF CARBON R	R25J-15	1	415471504T
R5245	NF CARBON R	R25J-15	1	415471504T
R5246	NF CARBON R	R25J-15	1	415471504T
R5250	CARBON R	R16J-68K	1	417346834T
R5251	CARBON R	R16J-68K	1	417346834T
R5252	CARBON R	R16J-68K	1	417346834T
R5253	CARBON R	R16J-68K	1	417346834T
R5254	CARBON R	R16J-68K	1	417346834T
R5255	CARBON R	R16J-68K	1	417346834T
R5256	CARBON R	R16J-68K	1	417346834T
R5260	CARBON R	R16J-270K	1	417342744T
R5261	CARBON R	R16J-270K	1	417342744T
R5262	CARBON R	R16J-270K	1	417342744T
R5263	CARBON R	R16J-270K	1	417342744T
R5264	CARBON R	R16J-270K	1	417342744T
R5265	CARBON R	R16J-270K	1	417342744T
R5266	CARBON R	R16J-270K	1	417342744T
R5280	METAL O R	RS1/2WBJ-10K	1	443521034T
R5281	METAL O R	RS1/2WBJ-10K	1	443521034T
R5282	METAL O R	RS1/2WBJ-10K	1	443521034T
R5283	METAL O R	RS1/2WBJ-10K	1	443521034T
R5284	METAL O R	RS1/2WBJ-10K	1	443521034T
R5285	METAL O R	RS1/2WBJ-10K	1	443521034T
R5286	METAL O R	RS1/2WBJ-10K	1	443521034T
R5290	CARBON R	R16J-100K	1	417341044T
R5291	CARBON R	R16J-100K	1	417341044T
R5292	CARBON R	R16J-100K	1	417341044T
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R5295	CARBON R	R16J-100K	1	417341044T
R5296	CARBON R	R16J-100K	1	417341044T
R5300	NF CARBON R	R25J-82	1	415478204T
R5301	NF CARBON R	R25J-82	1	415478204T
R5302	NF CARBON R	R25J-82	1	415478204T
R5303	NF CARBON R	R25J-82	1	415478204T
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R5306	NF CARBON R	R25J-82	1	415478204T
R5330	NF CARBON R	R25J-82	1	415478204T
R5331	NF CARBON R	R25J-82	1	415478204T
R5332	NF CARBON R	R25J-82	1	415478204T
R5333	NF CARBON R	R25J-82	1	415478204T

R5334	NF CARBON R	R25J-82	1	415478204T
R5335	NF CARBON R	R25J-82	1	415478204T
R5336	NF CARBON R	R25J-82	1	415478204T
R5360	CARBON R	R16J-120K	1	417341244T
R5361	CARBON R	R16J-120K	1	417341244T
R5362	CARBON R	R16J-120K	1	417341244T
R5363	CARBON R	R16J-120K	1	417341244T
R5364	CARBON R	R16J-120K	1	417341244T
R5365	CARBON R	R16J-120K	1	417341244T
R5366	CARBON R	R16J-120K	1	417341244T
R5370	CARBON R	R16J-560K	1	417345644T
R5371	CARBON R	R16J-560K	1	417345644T
R5372	CARBON R	R16J-560K	1	417345644T
R5373	CARBON R	R16J-560K	1	417345644T
R5374	CARBON R	R16J-560K	1	417345644T
R5375	CARBON R	R16J-560K	1	417345644T
R5376	CARBON R	R16J-560K	1	417345644T
R6010	CARBON R	R16J-4.7K	1	417344724T
R6011	CARBON R	R16J-4.7K	1	417344724T
R6012	CARBON R	R16J-4.7K	1	417344724T
R6013	CARBON R	R16J-4.7K	1	417344724T
R6014	CARBON R	R16J-4.7K	1	417344724T
R6015	CARBON R	R16J-4.7K	1	417344724T
R6016	CARBON R	R16J-4.7K	1	417344724T
R6020	CARBON R	R16J-3.3K	1	417343324T
R6021	CARBON R	R16J-3.3K	1	417343324T
R6022	CARBON R	R16J-3.3K	1	417343324T
R6023	CARBON R	R16J-3.3K	1	417343324T
R6024	CARBON R	R16J-3.3K	1	417343324T
R6025	CARBON R	R16J-3.3K	1	417343324T
R6026	CARBON R	R16J-3.3K	1	417343324T
R6030	CARBON R	R16J-1.8K	1	417341824T
R6031	CARBON R	R16J-1.8K	1	417341824T
R6032	CARBON R	R16J-1.8K	1	417341824T
R6033	CARBON R	R16J-1.8K	1	417341824T
R6034	CARBON R	R16J-1.8K	1	417341824T
R6035	CARBON R	R16J-1.8K	1	417341824T
R6036	CARBON R	R16J-1.8K	1	417341824T
R6040	TRIM R	N06HR1KBB	1	5211401T
R6041	TRIM R	N06HR1KBB	1	5211401T
R6042	TRIM R	N06HR1KBB	1	5211401T
R6043	TRIM R	N06HR1KBB	1	5211401T
R6044	TRIM R	N06HR1KBB	1	5211401T
R6045	TRIM R	N06HR1KBB	1	5211401T
R6046	TRIM R	N06HR1KBB	1	5211401T
R6050	CARBON R	R16J-2.7K	1	417342724T
R6051	CARBON R	R16J-2.7K	1	417342724T
R6052	CARBON R	R16J-2.7K	1	417342724T
R6053	CARBON R	R16J-2.7K	1	417342724T
R6054	CARBON R	R16J-2.7K	1	417342724T
R6055	CARBON R	R16J-2.7K	1	417342724T
R6056	CARBON R	R16J-2.7K	1	417342724T
R6060	NF CARBON R	R25J-120	1	415471214T
R6061	NF CARBON R	R25J-120	1	415471214T
R6062	NF CARBON R	R25J-120	1	415471214T
R6063	NF CARBON R	R25J-120	1	415471214T
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R6066	NF CARBON R	R25J-120	1	415471214T
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R6086	METAL O R	RS1/2WBJ-10	1	443521004T
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R6091	METAL O R	RS1/2WBJ-10	1	443521004T
R6092	METAL O R	RS1/2WBJ-10	1	443521004T
R6093	METAL O R	RS1/2WBJ-10	1	443521004T
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R6113	CARBON R	R16J-10K	1	417341034T
R6114	CARBON R	R16J-10K	1	417341034T
R6115	CARBON R	R16J-10K	1	417341034T

R6116	CARBON R	R16J-10K	1	417341034T
R6150	NF CARBON R	R25J-100	1	415471014T
R6151	NF CARBON R	R25J-100	1	415471014T
R6152	NF CARBON R	R25J-100	1	415471014T
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R6156	NF CARBON R	R25J-100	1	415471014T
R6160	NF CARBON R	R25J-100	1	415471014T
R6161	NF CARBON R	R25J-100	1	415471014T
R6162	NF CARBON R	R25J-100	1	415471014T
R6163	NF CARBON R	R25J-100	1	415471014T
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R6166	NF CARBON R	R25J-100	1	415471014T
R6170	CARBON R	R16J-33K	1	417343334T
R6171	CARBON R	R16J-33K	1	417343334T
R6172	CARBON R	R16J-33K	1	417343334T
R6173	CARBON R	R16J-33K	1	417343334T
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R6184	CARBON R	R16J-15K	1	417341534T
R6185	CARBON R	R16J-15K	1	417341534T
R6186	CARBON R	R16J-15K	1	417341534T
R6190	CARBON R	R16J-5.6K	1	417345624T
R6191	CARBON R	R16J-5.6K	1	417345624T
R6192	CARBON R	R16J-5.6K	1	417345624T
R6193	CARBON R	R16J-5.6K	1	417345624T
R6194	CARBON R	R16J-5.6K	1	417345624T
R6195	CARBON R	R16J-5.6K	1	417345624T
R6196	CARBON R	R16J-5.6K	1	417345624T
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R6214	CARBON R	R16J-47K	1	417344734T
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R6216	CARBON R	R16J-47K	1	417344734T
R6230	CARBON R	R16J-47K	1	417344734T
R6231	CARBON R	R16J-47K	1	417344734T
R6232	CARBON R	R16J-47K	1	417344734T
R6233	CARBON R	R16J-47K	1	417344734T
R6234	CARBON R	R16J-47K	1	417344734T
R6235	CARBON R	R16J-47K	1	417344734T
R6236	CARBON R	R16J-47K	1	417344734T
R6250	NF CARBON R	R25J-120	1	415471214T
R6251	NF CARBON R	R25J-120	1	415471214T
R6252	NF CARBON R	R25J-120	1	415471214T
R6253	NF CARBON R	R25J-120	1	415471214T
R6254	NF CARBON R	R25J-120	1	415471214T
R6255	NF CARBON R	R25J-120	1	415471214T
R6256	NF CARBON R	R25J-120	1	415471214T
R6260	NF CARBON R	R25J-120	1	415471214T
R6261	NF CARBON R	R25J-120	1	415471214T
R6262	NF CARBON R	R25J-120	1	415471214T
R6263	NF CARBON R	R25J-120	1	415471214T
R6264	NF CARBON R	R25J-120	1	415471214T
R6265	NF CARBON R	R25J-120	1	415471214T
R6266	NF CARBON R	R25J-120	1	415471214T
R6270	NF CARBON R	R25J-18	1	415471804T
R6271	NF CARBON R	R25J-18	1	415471804T
R6272	NF CARBON R	R25J-18	1	415471804T
R6273	NF CARBON R	R25J-18	1	415471804T
R6274	NF CARBON R	R25J-18	1	415471804T
R6275	NF CARBON R	R25J-18	1	415471804T
R6276	NF CARBON R	R25J-18	1	415471804T
R6280	NF CARBON R	R25J-18	1	415471804T
R6281	NF CARBON R	R25J-18	1	415471804T
R6282	NF CARBON R	R25J-18	1	415471804T
R6283	NF CARBON R	R25J-18	1	415471804T
R6284	NF CARBON R	R25J-18	1	415471804T
R6285	NF CARBON R	R25J-18	1	415471804T
R6286	NF CARBON R	R25J-18	1	415471804T
R6290	NF CARBON R	R25J-2.2	1	415470224T
R6291	NF CARBON R	R25J-2.2	1	415470224T
R6292	NF CARBON R	R25J-2.2	1	415470224T
R6293	NF CARBON R	R25J-2.2	1	415470224T
R6294	NF CARBON R	R25J-2.2	1	415470224T
R6295	NF CARBON R	R25J-2.2	1	415470224T
R6296	NF CARBON R	R25J-2.2	1	415470224T
R6300	NF CARBON R	R25J-2.2	1	415470224T

R6301	NF CARBON R	R25J-2.2	1	415470224T
R6302	NF CARBON R	R25J-2.2	1	415470224T
R6303	NF CARBON R	R25J-2.2	1	415470224T
R6304	NF CARBON R	R25J-2.2	1	415470224T
R6305	NF CARBON R	R25J-2.2	1	415470224T
R6306	NF CARBON R	R25J-2.2	1	415470224T
R6310	NF CARBON R	R25J-10	1	415471004T
R6311	NF CARBON R	R25J-10	1	415471004T
R6312	NF CARBON R	R25J-10	1	415471004T
R6313	NF CARBON R	R25J-10	1	415471004T
R6314	NF CARBON R	R25J-10	1	415471004T
R6315	NF CARBON R	R25J-10	1	415471004T
R6316	NF CARBON R	R25J-10	1	415471004T
R6330	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6331	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6332	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6333	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6334	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6335	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6336	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6340	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6341	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6342	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6343	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6344	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6345	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6346	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6350	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6351	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6352	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6353	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6354	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6355	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6356	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6360	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6361	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6362	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6363	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6364	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6365	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6366	METAL R	RNU1/2WCJ-0.22	1	453532294T
R6400	METAL PR	MPR5W+5W 0R22	1	4000233S
R6401	METAL PR	MPR5W+5W 0R22	1	4000233S
R6402	METAL PR	MPR5W+5W 0R22	1	4000233S
R6403	METAL PR	MPR5W+5W 0R22	1	4000233S
R6404	METAL PR	MPR5W+5W 0R22	1	4000233S
R6405	METAL PR	MPR5W+5W 0R22	1	4000233S
R6406	METAL PR	MPR5W+5W 0R22	1	4000233S
R6410	METAL PR	MPR5W+5W 0R22	1	4000233S
R6411	METAL PR	MPR5W+5W 0R22	1	4000233S
R6412	METAL PR	MPR5W+5W 0R22	1	4000233S
R6413	METAL PR	MPR5W+5W 0R22	1	4000233S
R6414	METAL PR	MPR5W+5W 0R22	1	4000233S
R6415	METAL PR	MPR5W+5W 0R22	1	4000233S
R6416	METAL PR	MPR5W+5W 0R22	1	4000233S
R6650	NF CARBON R	R25J-100	1	415471014T
R6651	NF CARBON R	R25J-100	1	415471014T
R6652	NF CARBON R	R25J-100	1	415471014T
R6653	NF CARBON R	R25J-100	1	415471014T
R6654	NF CARBON R	R25J-100	1	415471014T
R6655	NF CARBON R	R25J-100	1	415471014T
R6656	NF CARBON R	R25J-100	1	415471014T
R6660	NF CARBON R	R25J-100	1	415471014T
R6661	NF CARBON R	R25J-100	1	415471014T
R6662	NF CARBON R	R25J-100	1	415471014T
R6663	NF CARBON R	R25J-100	1	415471014T
R6664	NF CARBON R	R25J-100	1	415471014T
R6665	NF CARBON R	R25J-100	1	415471014T
R6666	NF CARBON R	R25J-100	1	415471014T
JL6041B	WIRE TRAP	NPLG-3P586	1	25055624
JL6042A	WIRE HOL	NSCT-3P874	1	25051087
JL6042B	WIRE TRAP	NPLG-3P586	1	25055624
P5010A	SOCKET	NSCT-3P2183	1	25052286
P5011A	SOCKET	NSCT-3P2183	1	25052286
P5012A	SOCKET	NSCT-3P2183	1	25052286
P5013A	SOCKET	NSCT-3P2183	1	25052286
P5014A	SOCKET	NSCT-3P2183	1	25052286
P5015A	SOCKET	NSCT-3P2183	1	25052286
P5016A	SOCKET	NSCT-3P2183	1	25052286
P5020A	TRM	NTM-1P233(M1969)	1	25060302
P5021A	TRM	NTM-1P233(M1969)	1	25060302
P5022A	TRM	NTM-1P233(M1969)	1	25060302
P5023A	TRM	NTM-1P233(M1969)	1	25060302
P5024A	TRM	NTM-1P233(M1969)	1	25060302
P5025A	TRM	NTM-1P233(M1969)	1	25060302
P5026A	TRM	NTM-1P233(M1969)	1	25060302

P6010A	SOCKET	NSCT-4P2184	1	25052287	
P6011A	SOCKET	NSCT-4P2184	1	25052287	
P6012A	SOCKET	NSCT-4P2184	1	25052287	
P6013A	SOCKET	NSCT-4P2184	1	25052287	
P6014A	SOCKET	NSCT-4P2184	1	25052287	
P6015A	SOCKET	NSCT-4P2184	1	25052287	
P6016A	SOCKET	NSCT-4P2184	1	25052287	
P6030A	PLUG	IMSA-9115B-06	1	25056336	
P6030B	SOCKET	IMSA-9115S-06L	1	25052986	
P6031A	PLUG	IMSA-9115B-06	1	25056336	
P6031B	SOCKET	IMSA-9115S-06L	1	25052986	
P6032A	PLUG	IMSA-9115B-06	1	25056336	
P6032B	SOCKET	IMSA-9115S-06L	1	25052986	
P6033A	PLUG	IMSA-9115B-06	1	25056336	
P6033B	SOCKET	IMSA-9115S-06L	1	25052986	
P6034A	PLUG	IMSA-9115B-06	1	25056336	
P6034B	SOCKET	IMSA-9115S-06L	1	25052986	
P6035A	PLUG	IMSA-9115B-06	1	25056336	
P6035B	SOCKET	IMSA-9115S-06L	1	25052986	
P6036A	PLUG	IMSA-9115B-06	1	25056336	
P6036B	SOCKET	IMSA-9115S-06L	1	25052986	
P6050	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6051	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6052	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6053	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6054	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6055	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6056	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6060	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6061	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6062	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6063	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6064	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6065	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6066	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6070	PLUG	NPLG-2P645	1	25055689	
P6071	PLUG	NPLG-2P645	1	25055689	
P6072	PLUG	NPLG-2P645	1	25055689	
P6073	PLUG	NPLG-2P645	1	25055689	
P6074	PLUG	NPLG-2P645	1	25055689	
P6075	PLUG	NPLG-2P645	1	25055689	
P6076	PLUG	NPLG-2P645	1	25055689	
P6080	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6081	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6082	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6083	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6084	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6085	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6086	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6090	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6091	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6092	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6093	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6094	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6095	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6096	PLUG	IMSA-9201B-1-06Z388-PT1	1	25056614	
P6240	SOCKET AS	NSAS-3P1658	1	2009991062AUL	
P6250	SOCKET AS	NSAS-4P1657	1	2009991061UL	
P6340A	PLUG	NPLG-2P149	1	25055165	
P6340B	RETAINER	(BUS-1)	1	27142056	
P6340C	RETAINER	(BUS-1)	1	27142056	
P6350A	PLUG	NPLG-2P149	1	25055165	
P6350B	RETAINER	(BUS-2)	1	27142057	
P6350C	RETAINER	(BUS-2)	1	27142057	

U25 DSP PC BOARD (NADSP-9072-1A)

REF. NO.	PART NAME	DESCRIPTION	Q'TY	PART NO. (SN)	REMARKS
Q3301	IC	TC74VHC157FT	1	22274157ER2TO	
Q3311	IC	TC74VHC157FT	1	22274157ER2TO	
Q3325	IC	TC74VHC157FT	1	22274157ER2TO	
Q3331	IC	TC74VHC157FT	1	22274157ER2TO	
Q3351	IC	TC74VHC157FT	1	22274157ER2TO	
Q3371	IC	TC74VHC157FT	1	22274157ER2TO	
Q3391	IC	TC74VHCT08AFT EKJ)	1	22274008G1R2TO	
Q3391 or	IC	TC74VHCT08AFT	(1)	22274008GR2TO	
Q3401	IC	D790E001BZDH275	1	22242503R3	NRP
Q3401 or	IC	D710E001BZDH275	1	22242409R3	NRP
Q3451	IC	ES29LV160ET-70TG	1	222W0069R3	
Q3451 or	IC	S29AL016D70TFI010	(1)	222W0063R3	
Q3461	IC	RMS116T(LF)	1	22242340R3	
Q3461 or	IC	IC42S16100	(1)	22242123R2	
Q3461 or	IC	IC42S16100	(1)	22242123R3	
Q3461 or	IC	M12L16161A-7TG	(1)	22242278R3	
Q3471	IC	RMS116T(LF)	1	22242340R3	
Q3471 or	IC	IC42S16100	(1)	22242123R2	

Q3471 or	IC	IC42S16100	(1)	22242123R3	
Q3471 or	IC	M12L16161A-7TG	(1)	22242278R3	
Q3481	IC	TC7WU04FU(TE12L_F)	1	22240935R2	
Q3491	IC	TC74VHC541FT	1	22274541ER2TO	
Q3491 or	IC	TC74VHC541FT(EKJ)	(1)	22274541E1R2TO	
Q3501	IC	D788E001BRFP266	1	22242502R3	NRP
Q3501 or	IC	D708E001BRFP266	1	22242402R3	NRP
Q3551	IC	ES29LV400ET-70TG	1	222W0065R3	
Q3551 or	IC	S29AL004D70TFI010	(1)	222W0061R3	
Q3561	IC	RMS116T(LF)	1	22242340R3	
Q3561 or	IC	IC42S16100	(1)	22242123R2	
Q3561 or	IC	M12L16161A-7TG	(1)	22242278R3	
Q3571	IC	TC7WU04FU(TE12L_F)	1	22240935R2	
Q3601	IC	D707E001BRFP250	1	22242401R3	NRP
Q3651	IC	ES29LV800ET-70TG	1	222W0068R3	
Q3651 or	IC	S29AL008D70TFI010	(1)	222W0062R3	
Q3661	IC	IS42S16400D-7TL	1	22241910R3	
Q3661 or	IC	K4S641632K-UC60	(1)	22242462R2	
Q3661 or	IC	M12L64164A-7TG	(1)	22242441R3	
Q7202	IC	BD7820	1	22242300R2	
Q7222	IC	BD7820	1	22242300R2	
Q7223	IC	BD7820	1	22242300R2	
D7205	C-DIODE	1SS352	1	223234R2	
D7205 or	C-DIODE	1SS355	(1)	223269R2	
D7225	C-DIODE	1SS352	1	223234R2	
D7225 or	C-DIODE	1SS355	(1)	223269R2	
D7226	C-DIODE	1SS352	1	223234R2	
D7226 or	C-DIODE	1SS355	(1)	223269R2	
L3301	CHOKE COIL	LBC2518T470M	1	231364M470R2	
L3311	EMIFIL	BK1608HS102-T	1	230955R2	
L3312	EMIFIL	BK1608LM182-T	1	230958R1	
L3371	EMIFIL	BK1608LM182-T	1	230958R1	
L3372	EMIFIL	BK1608HS102-T	1	230955R2	
L3401	EMIFIL	ACF451832-333-T	1	230978R2	
L3402	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L3403	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3451	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L3481	EMIFIL	BK1608LM182-T	1	230958R1	
L3482	EMIFIL	BK1608LM182-T	1	230958R1	
L3483	CHOKE COIL	LBC2518T470M	1	231364M470R2	
L3491	CHOKE COIL	LBC2518T470M	1	231364M470R2	
L3501	EMIFIL	ACF451832-333-T	1	230978R2	
L3541	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3542	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L3551	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L3571	CHOKE COIL	LBC2518T470M	1	231364M470R2	
L3572	EMIFIL	BK1608LM182-T	1	230958R1	
L3601	EMIFIL	ACF451832-333-T	1	230978R2	
L3602	EMIFIL	BK1608LL241-T	1	230959R1	
L3603	EMIFIL	BK1608HS102-T	1	230955R2	
L3641	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3642	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L3651	CHOKE COIL	BLM21PG221SN1	1	230949R2	
X3481	CRYSTAL	HC-49USSMD25.00MHz	1	3010444R2	
X3571	CRYSTAL	HC-49USSMD17.734MHz	1	3010442R2	
C3301	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3302	CHIP ELECT C	CEWX4V-100M	1	3981G1017R2	
C3311	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3315	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3325	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3331	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3351	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3371	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3391	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3401	C-CERA C	CC725CH1H-101J1	1	342101014R1	
C3402	CHIP ELECT C	CEWX4V-100M	1	3981G1017R2	
C3403	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3405	CHIP ELECT C	CEWX4V-220M	1	3981G2217R2	
C3411	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3412	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3413	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3414	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3415	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3416	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3417	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3418	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3419	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3420	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3421	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3425	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3426	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3427	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3428	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3429	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3430	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3431	C-CERA C	CK725F1E-104Z1	1	332161040R1	

C3432	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3433	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3434	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3435	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3451	C-CERA C	CC725CH1H-101J1	1	342101014R1
C3452	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3453	CHIP ELECT C	CEWX4V-220M	1	3981G2217R2
C3461	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3462	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3463	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3464	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3465	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3466	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3467	CHIP ELECT C	CEWX4V-220M	1	3981G2217R2
C3471	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3472	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3473	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3474	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3475	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3476	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3477	CHIP ELECT C	CEWX4V-220M	1	3981G2217R2
C3481	C-CERA C	CC725CH1H-090D1	1	342100902R1
C3482	C-CERA C	CC725CH1H-090D1	1	342100902R1
C3483	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3484	CHIP ELECT C	CEWX4V-100M	1	3981G1017R2
C3491	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3501	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3502	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3503	C-CERA C	CC725CH1H-101J1	1	342101014R1
C3504	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3505	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3506	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3507	CHIP ELECT C	CEWX4V-220M	1	3981G2217R2
C3508	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3509	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3510	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3511	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3512	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3513	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3514	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3515	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3516	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3517	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3518	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3519	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3520	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3521	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3522	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3523	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3524	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3525	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3526	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3527	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3528	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3529	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3541	CHIP ELECT C	CEWX4V-220M	1	3981G2217R2
C3542	CHIP ELECT C	CEWX4V-220M	1	3981G2217R2
C3551	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3552	C-CERA C	CC725CH1H-101J1	1	342101014R1
C3553	CHIP ELECT C	CEWX4V-220M	1	3981G2217R2
C3561	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3562	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3563	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3564	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3565	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3566	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3567	CHIP ELECT C	CEWX4V-220M	1	3981G2217R2
C3571	C-CERA C	CC725CH1H-120J1	1	342101204R1
C3572	C-CERA C	CC725CH1H-120J1	1	342101204R1
C3573	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3574	CHIP ELECT C	CEWX4V-100M	1	3981G1017R2
C3601	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3602	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3603	C-CERA C	CC725CH1H-101J1	1	342101014R1
C3604	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3605	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3606	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3607	CHIP ELECT C	CEWX4V-220M	1	3981G2217R2
C3608	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3609	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3610	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3611	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3612	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3613	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3614	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3615	C-CERA C	CK725F1E-104Z1	1	332161040R1

C3616	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3617	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3618	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3619	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3620	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3621	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3622	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3623	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3624	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3625	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3626	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3627	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3628	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3629	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3641	CHIP ELECT C	CEWX4V-220M	1	3981G2217R2
C3642	CHIP ELECT C	CEWX4V-220M	1	3981G2217R2
C3651	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3652	C-CERA C	CC725CH1H-101J1	1	342101014R1
C3653	CHIP ELECT C	CEWX4V-220M	1	3981G2217R2
C3661	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3662	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3663	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3664	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3665	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3666	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3667	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3668	CHIP ELECT C	CEWX4V-220M	1	3981G2217R2
C7204	CHIP ELECT C	CEWX4V-100M	1	3981G1017R2
C7205	C-CERA C	CK725F1E-104Z1	1	332161040R1
C7206	CHIP ELECT C	CEWX4V-220M	1	3981G2217R2
C7224	CHIP ELECT C	CEWX4V-100M	1	3981G1017R2
C7225	C-CERA C	CK725F1E-104Z1	1	332161040R1
C7226	CHIP ELECT C	CEWX4V-100M	1	3981G1017R2
C7227	CHIP ELECT C	CEWX4V-100M	1	3981G1017R2
C7228	C-CERA C	CK725F1E-104Z1	1	332161040R1
C7229	CHIP ELECT C	CEWX4V-100M	1	3981G1017R2
R3301	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3302	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3303	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3304	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3305	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3306	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3307	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3311	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3312	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3313	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3314	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3315	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3316	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3317	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3318	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3319	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3320	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3321	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3322	C-CARBON R	RN72K1J-331JE	1	435033314R1
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R3326	C-CARBON R	RN72K1J-470JE	1	435034704R1
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R3330	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3331	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3332	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3333	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3334	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3335	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3336	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3337	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3338	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3339	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3340	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3341	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3342	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3345	C-CARBON R	RN72K1J-101JE	1	435031014R1
R3351	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3352	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3353	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3354	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3355	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3356	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3357	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3358	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3359	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3360	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3361	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3362	C-CARBON R	RN72K1J-331JE	1	435033314R1

R3371	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3373	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3374	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3376	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3377	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3379	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3380	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3381	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3382	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3391	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3401	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3402	C-CARBON R	RN72K1J-102JE	1	435031024R1
R3403	C-CARBON R	RN72K1J-102JE	1	435031024R1
R3404	C-CARBON R	RN72K1J-222JE	1	435032224R1
R3405	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3406	C-CARBON R	RN72K1J-102JE	1	435031024R1
R3407	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3408	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3409	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3410	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3411	C-CARBON R	RN72K1J-103JE	1	435031034R1
R3412	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3413	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3414	C-CARBON R	RN72K1J-103JE	1	435031034R1
R3415	C-CARBON R	RN72K1J-103JE	1	435031034R1
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R3455	C-CARBON R	RN72K1J-103JE	1	435031034R1
R3456	C-CARBON R	RN72K1J-103JE	1	435031034R1
R3457	C-CARBON R	RN72K1J-103JE	1	435031034R1
R3482	C-CARBON R	RN72K1J-221JE	1	435032214R1
R3483	C-CARBON R	RN72K1J-105JE	1	435031054R1
R3491	C-CARBON R	RN72K1J-472JE	1	435034724R1
R3492	C-CARBON R	RN72K1J-472JE	1	435034724R1
R3493	C-CARBON R	RN72K1J-472JE	1	435034724R1
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R3495	C-CARBON R	RN72K1J-472JE	1	435034724R1
R3496	C-CARBON R	RN72K1J-103JE	1	435031034R1
R3501	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3502	C-CARBON R	RN72K1J-102JE	1	435031024R1
R3503	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3504	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3505	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3506	C-CARBON R	RN72K1J-222JE	1	435032224R1
R3507	C-CARBON R	RN72K1J-102JE	1	435031024R1
R3508	C-CARBON R	RN72K1J-102JE	1	435031024R1
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R3511	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3512	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3513	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3514	C-CARBON R	RN72K1J-103JE	1	435031034R1
R3515	C-CARBON R	RN72K1J-103JE	1	435031034R1
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R3524	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3525	C-CARBON R	RN72K1J-103JE	1	435031034R1
R3526	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3527	C-CARBON R	RN72K1J-331JE	1	435033314R1
R3528	C-CARBON R	RN72K1J-470JE	1	435034704R1
R3529	C-CARBON R	RN72K1J-103JE	1	435031034R1
R3530	C-CARBON R	RN72K1J-470JE	1	435034704R1

R3551	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R3552	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R3553	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R3554	C-CARBON R	RN72K1J-102JE	1	435031024R1	
R3557	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R3558	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R3571	C-CARBON R	RN72K1J-105JE	1	435031054R1	
R3572	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R3601	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R3602	C-CARBON R	RN72K1J-102JE	1	435031024R1	
R3603	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R3604	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R3605	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R3606	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R3607	C-CARBON R	RN72K1J-102JE	1	435031024R1	
R3608	C-CARBON R	RN72K1J-102JE	1	435031024R1	
R3609	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R3610	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R3611	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R3612	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R3613	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R3614	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R3615	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R3616	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R3617	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R3618	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R3619	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R3620	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R3621	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R3622	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R3623	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R3624	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R3625	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R3626	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R3627	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R3628	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R3629	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R3630	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R3651	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R3652	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R3653	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R3656	C-CARBON R	RN72K1J-102JE	1	435031024R1	
R3657	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R3658	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R3659	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7206	C-CARBON R	RN72K1J-273JE	1	435032734R1	
R7207	C-CARBON R	RN72K1J-273JE	1	435032734R1	
R7208	C-CARBON R	RN72K1J-393JE	1	435033934R1	
R7226	C-CARBON R	RN72K1J-273JE	1	435032734R1	
R7227	C-CARBON R	RN72K1J-273JE	1	435032734R1	
R7228	C-CARBON R	RN72K1J-393JE	1	435033934R1	
R7229	C-CARBON R	RN72K1J-273JE	1	435032734R1	
R7230	C-CARBON R	RN72K1J-273JE	1	435032734R1	
R7239	C-CARBON R	RN72K1J-393JE	1	435033934R1	
P3801B	SOCKET	IMSA-9856S-30B-T	1	25053236R2	
P3802B	SOCKET	IMSA-9856S-30B-T	1	25053236R2	
P3805A	PLUG	NPLG-10P662	1	25055706	

U27 **DAC PC BOARD (NADG-9074-1A/1B/1C)**
U28 **MICROPROCESSOR PC BOARD (NAAR-9075-1A/1B/1C)**
U30 **XM PC BOARD (NARF-9077-1A/1B/1C)**
U31 **HOLDER PC BOARD (NAETC-9078-1A/1B/1C)**
U32 **AMPLIFIER PC BOARD (NAASP-9080-1A/1B/1C)**
U26 **AMPLIFIER PC BOARD (NAETC-9073-1A/1B/1C)**

REF. NO.	PART NAME	DESCRIPTION	Q'TY	PART NO. (SN)	REMARKS
U3001	PHT CP	GP1FAV51RKF5	1	24120129	
U3002	PHT CP	GP1FAV51RKF5	1	24120129	
U3004	PHT CP	GP1FAV51TKBF	1	24120132	
Q101	IC	CS4344-CZZR	1	22242406R2	<DC>
Q102	IC	TA48033AF(TE16L_NQ)	1	22278033DR2TO	<DC>
Q102 or	IC	BA33BC0FP	(1)	22278033DR2RH	<DC>
Q103	IC	BU9450KV-E2	1	22242505R2	<DC>
Q103 or	IC	F2628E-01	1	22242436R2	<DC>
Q104	IC	TA48033AF(TE16L_NQ)	1	22278033DR2TO	<DC>
Q104 or	IC	BA33BC0FP	(1)	22278033DR2RH	<DC>
Q105	IC	NE5532APSR	1	22242283R2	<DC>
Q106	IC	NE5532APSR	1	22242283R2	<DC>
Q107	IC	TC74VHCT08AFT EKJ)	1	22274008G1R2TO	<DC>
Q107 or	IC	TC74VHCT08AFT	(1)	22274008GR2TO	<DC>
Q3001	IC	TC74VHC157FT	1	22274157ER2TO	
Q3021	IC	74HCU04F	1	222740046R2	
Q3031	IC	ICL3221ECVZ	1	22242268R2	
Q3041	IC	CS42516-CQZ(R)-D	1	22242294R2	
Q3071	IC	TC7WU04FU(TE12L_F)	1	22240935R2	
Q3081	IC	NE5532APSR	1	22242283R2	

Q3082	IC	NE5532APSR	1	22242283R2	
Q3701	IC	PCM1796DBR	1	22242403R2	
Q3721	IC	PCM1796DBR	1	22242403R2	
Q3741	IC	PCM1796DBR	1	22242403R2	
Q3761	IC	PCM1796DBR	1	22242403R2	
Q3781	IC	PCM1796DBR	1	22242403R2	
Q3800	IC	NE5532APSR	1	22242283R2	
Q3801	IC	NE5532APSR	1	22242283R2	
Q3802	IC	NE5532APSR	1	22242283R2	
Q3803	IC	NE5532APSR	1	22242283R2	
Q3804	IC	NE5532APSR	1	22242283R2	
Q3805	IC	NE5532APSR	1	22242283R2	
Q3806	IC	NE5532APSR	1	22242283R2	
Q3807	IC	NE5532APSR	1	22242283R2	
Q3808	IC	NE5532APSR	1	22242283R2	
Q3809	IC	NE5532APSR	1	22242283R2	
Q3810	IC	NE5532APSR	1	22242283R2	
Q3811	IC	NE5532APSR	1	22242283R2	
Q3812	IC	NE5532APSR	1	22242283R2	
Q3813	IC	NE5532APSR	1	22242283R2	
Q3814	IC	NE5532APSR	1	22242283R2	
Q4201	IC	NE5532APSR	1	22242283R2	
Q4202	IC	NE5532APSR	1	22242283R2	
Q4204	IC	R2S15211FP	1	22242297R3	
Q4291	TR	2SC2235-Y(TPE6_F)	1	2211654T	
Q4292	TR	2SA965-Y(TPE6_F)	1	2211644T	
Q4720	IC	NE5532APSR	1	22242283R2	
Q4721	IC	NE5532APSR	1	22242283R2	
Q4722	IC	NE5532APSR	1	22242283R2	
Q4723	IC	NE5532APSR	1	22242283R2	
Q7001	IC	M3087BFKBGP	1	222W0059R3	
Q7002	TR	RN1404	1	2214490R2	
Q7002 or	TR	KRC104S	(1)	2216210R2	
Q7003	TR	DTA114YKA	1	2216480R2	
Q7003 or	TR	KRA107S	(1)	2216350R2	
Q7003 or	TR	RN2407(TE85L_F)	(1)	2216360R2	
Q7005	TR	DTC114EKA	1	2216250R2	
Q7005 or	TR	KRC102S	(1)	2216190R2	
Q7005 or	TR	RN1402	(1)	2214470R2	
Q7006	TR	DTA114YKA	1	2216480R2	
Q7006 or	TR	KRA107S	(1)	2216350R2	
Q7006 or	TR	RN2407(TE85L_F)	(1)	2216360R2	
Q7007	TR	DTC114EKA	1	2216250R2	
Q7007 or	TR	KRC102S	(1)	2216190R2	
Q7007 or	TR	RN1402	(1)	2214470R2	
Q7151	IC	TC74VHCT08AFT EKJ)	1	22274008G1R2TO	
Q7151 or	IC	TC74VHCT08AFT	(1)	22274008GR2TO	
Q7155	IC	TC74VHCT08AFT EKJ)	1	22274008G1R2TO	
Q7155 or	IC	TC74VHCT08AFT	(1)	22274008GR2TO	
Q7161	IC	TC74VHCT08AFT EKJ)	1	22274008G1R2TO	
Q7161 or	IC	TC74VHCT08AFT	(1)	22274008GR2TO	
Q7165	IC	TC74VHCT08AFT EKJ)	1	22274008G1R2TO	<DC>
Q7165 or	IC	TC74VHCT08AFT	(1)	22274008GR2TO	<DC>
Q7171	IC	TC74VHC238FT	1	22274238ER2TO	
Q7172	IC	74AHC138PW	1	22274138IR2PH	
Q7181	IC	NJU7312AM	1	22242210R2	
Q7182	TR	2SC2712-GR	1	2213145R2	
Q7183	TR	RN1404	1	2214490R2	
Q7183 or	TR	KRC104S	(1)	2216210R2	
Q7184	TR	RN2402	1	2214530R2	
Q7184 or	TR	KRA102S	(1)	2216220R2	
Q7201	IC	SI8008TM	1	22242323R2	
Q7221	IC	SI8008TM	1	22242323R2	
Q7231	IC	SI8008TM	1	22242323R2	
Q7232	IC	BD7820	1	22242300R2	<DC>
Q7241	IC	TA4805AF(TE16L_NQ)	1	22278005DR2TO	
Q7241 or	IC	BA50BC0FP	(1)	22278005DR2RH	
Q7242	IC	TA48033AF(TE16L_NQ)	1	22278033DR2TO	
Q7242 or	IC	BA33BC0FP	(1)	22278033DR2RH	
Q7246	IC	TA48033AF(TE16L_NQ)	1	22278033DR2TO	
Q7246 or	IC	BA33BC0FP	(1)	22278033DR2RH	
Q7251	IC	TA4805AF(TE16L_NQ)	1	22278005DR2TO	
Q7261	IC	XC6202P502FR	1	22242331R2	
Q7262	IC	XC6213B332MR	1	22242277R2	
Q7351	TR	RN1404	1	2214490R2	
Q7351 or	TR	KRC104S	(1)	2216210R2	
Q7352	TR	RN2402	1	2214530R2	
Q7352 or	TR	KRA102S	(1)	2216220R2	
Q7355	TR	RN1404	1	2214490R2	
Q7355 or	TR	KRC104S	(1)	2216210R2	
Q7356	TR	RN2402	1	2214530R2	
Q7356 or	TR	KRA102S	(1)	2216220R2	
Q7361	TR	RN1404	1	2214490R2	
Q7361 or	TR	KRC104S	(1)	2216210R2	
Q7362	TR	RN2402	1	2214530R2	
Q7362 or	TR	KRA102S	(1)	2216220R2	

Q7365	TR	RN1404	1	2214490R2	
Q7365 or	TR	KRC104S	(1)	2216210R2	
Q7366	TR	RN2402	1	2214530R2	
Q7366 or	TR	KRA102S	(1)	2216220R2	
Q7381	IC	S-812C56AUA-C3K	1	22242207R2	
Q7385	IC	S-812C33AUA-C2N	1	22242222R2	
Q7391	IC	IS25C64A-2GLI	1	22242385R2	
Q7401	TR	DTC114EKA	1	2216250R2	
Q7401 or	TR	KRC102S	(1)	2216190R2	
Q7401 or	TR	RN1402	(1)	2214470R2	
D4291	ZENER D	UDZS7.5B	1	224550750R2	
D4292	ZENER D	UDZS7.5B	1	224550750R2	
D7001	C-DIODE	1SS352	1	223234R2	
D7001 or	C-DIODE	1SS355	(1)	223269R2	
D7002	C-DIODE	1SS352	1	223234R2	
D7002 or	C-DIODE	1SS355	(1)	223269R2	
D7003	C-DIODE	1SS352	1	223234R2	
D7003 or	C-DIODE	1SS355	(1)	223269R2	
D7064	C-DIODE	1SS352	1	223234R2	
D7064 or	C-DIODE	1SS355	(1)	223269R2	
D7181	ZENER D	UDZS9.1B	1	224550910R2	
D7201	C-DIODE	1SS352	1	223234R2	
D7201 or	C-DIODE	1SS355	(1)	223269R2	
D7202	C-DIODE	CRS09(TE85L_Q)	1	223274R2	
D7221	C-DIODE	1SS352	1	223234R2	
D7221 or	C-DIODE	1SS355	(1)	223269R2	
D7222	C-DIODE	CRS09(TE85L_Q)	1	223274R2	
D7231	C-DIODE	1SS352	1	223234R2	
D7231 or	C-DIODE	1SS355	(1)	223269R2	
D7232	C-DIODE	CRS09(TE85L_Q)	1	223274R2	
D7233	C-DIODE	1SS352	1	223234R2	<DC>
D7233 or	C-DIODE	1SS355	(1)	223269R2	<DC>
D7245	DIODE	RL1N4003	1	22380260T	
D7245 or	DIODE	GP104003E	(1)	22380035T	
D7246	DIODE	RL1N4003	1	22380260T	
D7246 or	DIODE	GP104003E	(1)	22380035T	
D7371	C-DIODE	1SS352	1	223234R2	
D7371 or	C-DIODE	1SS355	(1)	223269R2	
D7372	C-DIODE	1SS352	1	223234R2	
D7372 or	C-DIODE	1SS355	(1)	223269R2	
D7381	C-DIODE	1SS352	1	223234R2	
D7381 or	C-DIODE	1SS355	(1)	223269R2	
D7382	C-DIODE	1SS352	1	223234R2	
D7382 or	C-DIODE	1SS355	(1)	223269R2	
D7383	C-DIODE	1SS352	1	223234R2	
D7383 or	C-DIODE	1SS355	(1)	223269R2	
D7384	C-DIODE	1SS352	1	223234R2	
D7384 or	C-DIODE	1SS355	(1)	223269R2	
L101	EMIFIL	BK1608LM182-T	1	230958R1	<DC>
L102	CHOKE COIL	NCH-1471	1	231237K022R2	<DC>
L103	CHOKE COIL	BLM21PG221SN1	1	230949R2	<DC>
L104	CHOKE COIL	NCH-1471	1	231237K022R2	<DC>
L105	CHOKE COIL	BLM21PG221SN1	1	230949R2	<DC>
L106	CHOKE COIL	BLM21PG221SN1	1	230949R2	<DC>
L3001	CHOKE COIL	LBC2518T470M	1	231364M470R2	
L3002	CHOKE COIL	LBC2518T470M	1	231364M470R2	
L3011	CHOKE COIL	LBC2518T2R2M	1	231364M022R2	
L3012	CHOKE COIL	LBC2518T2R2M	1	231364M022R2	
L3013	CHOKE COIL	LBC2518T2R2M	1	231364M022R2	
L3021	CHOKE COIL	LBC2518T470M	1	231364M470R2	
L3031	CHOKE COIL	LBC2518T470M	1	231364M470R2	
L3041	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3042	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3043	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3044	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3045	EMIFIL	BK1608LM182-T	1	230958R1	
L3046	EMIFIL	BK1608HS102-T	1	230955R2	
L3071	CHOKE COIL	LBC2518T470M	1	231364M470R2	
L3072	EMIFIL	BK1608LM182-T	1	230958R1	
L3701	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3702	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3703	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3704	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3721	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3722	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3723	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3724	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3741	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3742	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3743	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3744	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3761	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3762	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3763	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3764	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3781	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	

L3782	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3783	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L3784	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L7165	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L7201	CHOKE COIL	NCH-2541	1	231363K470	
L7211	CHOKE COIL	NCH-2541	1	231363K470	
L7221	CHOKE COIL	NCH-2541	1	231363K470	
X101	CRYSTAL	DSX840GA 45.1584MHz	1	3010420R2	<DC>
X101 or	CRYSTAL	FCX-02N 45.1584MHz	(1)	3010421R2	<DC>
X3071	CRYSTAL	HC-49US24.576MHz	1	3010423T	
X3071A	IB CUSHION	W15*3t TAPE	1	28141585	
X7001	CERA LOCK	CSTCE8M00G55-R0	1	3010416R2	
C101	VR C	CE04W6.3V-470M(VR)	1	394624717T	<DC>
C102	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC>
C104	UTSP C	CE04W50V-10M(UTSP)	1	397581007T	<DC>
C105	UTSP C	CE04W50V-10M(UTSP)	1	397581007T	<DC>
C106	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC>
C107	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC>
C108	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC>
C109	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC>
C110	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC>
C111	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC>
C112	C-CERA C	CC725CH1H-080D1	1	342100802R1	<DC>
C113	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC>
C114	C-CERA C	CC725CH1H-040C1	1	342100401R1	<DC>
C115	C-CERA C	CK725B1H-102K1	1	332101025R1	<DC>
C116	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC>
C117	VR C	CE04W16V-100M(VR)	1	394641017T	<DC>
C118	VR C	CE04W6.3V-470M(VR)	1	394624717T	<DC>
C119	VR C	CE04W16V-100M(VR)	1	394641017T	<DC>
C120	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC>
C121	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC>
C122	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC>
C123	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC>
C124	VR C	CE04W16V-100M(VR)	1	394641017T	<DC>
C125	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC>
C126	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC>
C127	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC>
C128	UTSP C	CE04W50V-10M(UTSP)	1	397581007T	<DC>
C129	UTSP C	CE04W50V-10M(UTSP)	1	397581007T	<DC>
C130	C-CERA C	CC725CH1H-821J1	1	342108214R1	<DC>
C131	C-CERA C	CC725CH1H-821J1	1	342108214R1	<DC>
C132	C-CERA C	CC725CH1H-821J1	1	342108214R1	<DC>
C133	C-CERA C	CC725CH1H-821J1	1	342108214R1	<DC>
C135	UTSP C	CE04W25V-100M(UTSP)	1	397551017T	<DC>
C136	UTSP C	CE04W25V-100M(UTSP)	1	397551017T	<DC>
C137	UTSP C	CE04W50V-10M(UTSP)	1	397581007T	<DC>
C138	UTSP C	CE04W50V-10M(UTSP)	1	397581007T	<DC>
C139	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC>
C140	C-CERA C	CK725B1H-102K1	1	332101025R1	<DC>
C3001	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3002	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3004	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3006	VR C	CE04W16V-100M(VR)	1	394641017T	
C3007	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3008	VR C	CE04W16V-100M(VR)	1	394641017T	
C3011	C-CERA C	CC725CH1H-101J1	1	342101014R1	
C3012	C-CERA C	CK725B1C-104K1	1	332121045R1	
C3013	C-CERA C	CC725CH1H-080D1	1	342100802R1	
C3014	C-CERA C	CC725CH1H-101J1	1	342101014R1	
C3015	C-CERA C	CK725B1C-104K1	1	332121045R1	
C3016	C-CERA C	CC725CH1H-080D1	1	342100802R1	
C3017	C-CERA C	CC725CH1H-101J1	1	342101014R1	
C3018	C-CERA C	CK725B1C-104K1	1	332121045R1	
C3019	C-CERA C	CC725CH1H-080D1	1	342100802R1	
C3021	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3022	VR C	CE04W16V-100M(VR)	1	394641017T	
C3025	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3031	UTSP C	CE04W50V-1M(UTSP)	1	397580107T	
C3032	UTSP C	CE04W50V-1M(UTSP)	1	397580107T	
C3033	UTSP C	CE04W50V-1M(UTSP)	1	397580107T	
C3034	UTSP C	CE04W50V-1M(UTSP)	1	397580107T	
C3035	VR C	CE04W16V-100M(VR)	1	394641017T	
C3036	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3037	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3041	UTSP C	CE04W10V-470M(UTSP)	1	397534717T	
C3042	UTSP C	CE04W10V-470M(UTSP)	1	397534717T	
C3043	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3044	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3045	TF C	ECQ-B50V-222J	1	374722224T	
C3046	TF C	ECQ-B50V-222J	1	374722224T	
C3047	UTSJ C	CE04W25V-47M(UTSJ)	1	398054707T	
C3048	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C3049	VR C	CE04W16V-100M(VR)	1	394641017T	
C3050	UTSP C	CE04W10V-470M(UTSP)	1	397534717T	
C3051	C-CERA C	CK725F1E-104Z1	1	332161040R1	

C3052	C-CERA C	CK725B1H-102K1	1	332101025R1
C3053	C-CERA C	CK725B1H-223K1	1	332102235R1
C3054	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3055	C-CERA C	CC725CH1H-330J1	1	342103304R1
C3057	C-CERA C	CC725CH1H-330J1	1	342103304R1
C3058	C-CERA C	CC725CH1H-330J1	1	342103304R1
C3059	UTSP C	CE04W10V-470M(UTSP)	1	397534717T
C3061	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3062	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3064	C-CERA C	CK725B1H-102K1	1	332101025R1
C3065	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3069	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3071	C-CERA C	CC725CH1H-120J1	1	342101204R1
C3072	C-CERA C	CC725CH1H-120J1	1	342101204R1
C3073	C-CERA C	CK725F1E-104Z1	1	332161040R1
C3081	UTSP C	CE04W25V-47M(UTSP)	1	397554707T
C3082	UTSP C	CE04W25V-47M(UTSP)	1	397554707T
C3091	UTSP C	CE04W25V-47M(UTSP)	1	397554707T
C3092	UTSP C	CE04W25V-47M(UTSP)	1	397554707T
C3095	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C3096	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C3701	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3702	C-FILM C	ECHU16V-104J	1	373041044R2
C3703	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3704	C-FILM C	ECHU16V-104J	1	373041044R2
C3705	UTSJ C	CE04W25V-47M(UTSJ)	1	398054707T
C3707	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3708	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3709	C-FILM C	ECHU16V-104J	1	373041044R2
C3710	C-CERA C	CK725B1H-102K1	1	332101025R1
C3711	C-CERA C	CK725B1H-102K1	1	332101025R1
C3721	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3722	C-FILM C	ECHU16V-104J	1	373041044R2
C3723	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3724	C-FILM C	ECHU16V-104J	1	373041044R2
C3725	UTSJ C	CE04W25V-47M(UTSJ)	1	398054707T
C3727	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3728	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3729	C-FILM C	ECHU16V-104J	1	373041044R2
C3730	C-CERA C	CK725B1H-102K1	1	332101025R1
C3741	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3742	C-FILM C	ECHU16V-104J	1	373041044R2
C3743	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3744	C-FILM C	ECHU16V-104J	1	373041044R2
C3745	UTSJ C	CE04W25V-47M(UTSJ)	1	398054707T
C3747	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3748	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3749	C-FILM C	ECHU16V-104J	1	373041044R2
C3750	C-CERA C	CK725B1H-102K1	1	332101025R1
C3761	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3762	C-FILM C	ECHU16V-104J	1	373041044R2
C3763	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3764	C-FILM C	ECHU16V-104J	1	373041044R2
C3765	UTSJ C	CE04W25V-47M(UTSJ)	1	398054707T
C3767	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3768	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3769	C-FILM C	ECHU16V-104J	1	373041044R2
C3770	C-CERA C	CK725B1H-102K1	1	332101025R1
C3781	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3782	C-FILM C	ECHU16V-104J	1	373041044R2
C3783	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3784	C-FILM C	ECHU16V-104J	1	373041044R2
C3785	UTSJ C	CE04W25V-47M(UTSJ)	1	398054707T
C3787	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3788	UTSP C	CE04W10V-220M(UTSP)	1	397532217T
C3789	C-FILM C	ECHU16V-104J	1	373041044R2
C3790	C-CERA C	CK725B1H-102K1	1	332101025R1
C3800	TF C	ECQ-B50V-272J	1	374722724T
C3801	TF C	ECQ-B50V-272J	1	374722724T
C3802	TF C	ECQ-B50V-272J	1	374722724T
C3803	TF C	ECQ-B50V-272J	1	374722724T
C3804	TF C	ECQ-B50V-272J	1	374722724T
C3805	TF C	ECQ-B50V-272J	1	374722724T
C3806	TF C	ECQ-B50V-272J	1	374722724T
C3807	TF C	ECQ-B50V-272J	1	374722724T
C3808	TF C	ECQ-B50V-272J	1	374722724T
C3809	TF C	ECQ-B50V-272J	1	374722724T
C3810	TF C	ECQ-B50V-272J	1	374722724T
C3811	TF C	ECQ-B50V-272J	1	374722724T
C3812	TF C	ECQ-B50V-272J	1	374722724T
C3813	TF C	ECQ-B50V-272J	1	374722724T
C3814	TF C	ECQ-B50V-272J	1	374722724T
C3815	TF C	ECQ-B50V-272J	1	374722724T
C3816	TF C	ECQ-B50V-272J	1	374722724T
C3817	TF C	ECQ-B50V-272J	1	374722724T
C3818	TF C	ECQ-B50V-272J	1	374722724T

C3819	TF C	ECQ-B50V-272J	1	374722724T
C3820	TF C	ECQ-B50V-471J	1	374724714T
C3821	TF C	ECQ-B50V-471J	1	374724714T
C3822	TF C	ECQ-B50V-471J	1	374724714T
C3823	TF C	ECQ-B50V-471J	1	374724714T
C3824	TF C	ECQ-B50V-471J	1	374724714T
C3825	TF C	ECQ-B50V-471J	1	374724714T
C3826	TF C	ECQ-B50V-471J	1	374724714T
C3827	TF C	ECQ-B50V-471J	1	374724714T
C3828	TF C	ECQ-B50V-471J	1	374724714T
C3829	TF C	ECQ-B50V-471J	1	374724714T
C3830	TF C	ECQ-B50V-471J	1	374724714T
C3831	TF C	ECQ-B50V-471J	1	374724714T
C3832	TF C	ECQ-B50V-471J	1	374724714T
C3833	TF C	ECQ-B50V-471J	1	374724714T
C3834	TF C	ECQ-B50V-471J	1	374724714T
C3835	TF C	ECQ-B50V-471J	1	374724714T
C3836	TF C	ECQ-B50V-471J	1	374724714T
C3837	TF C	ECQ-B50V-471J	1	374724714T
C3838	TF C	ECQ-B50V-471J	1	374724714T
C3839	TF C	ECQ-B50V-471J	1	374724714T
C3840	TF C	ECQ-B50V-272J	1	374722724T
C3841	TF C	ECQ-B50V-272J	1	374722724T
C3842	TF C	ECQ-B50V-272J	1	374722724T
C3843	TF C	ECQ-B50V-272J	1	374722724T
C3844	TF C	ECQ-B50V-272J	1	374722724T
C3845	TF C	ECQ-B50V-272J	1	374722724T
C3846	TF C	ECQ-B50V-272J	1	374722724T
C3847	TF C	ECQ-B50V-272J	1	374722724T
C3848	TF C	ECQ-B50V-272J	1	374722724T
C3849	TF C	ECQ-B50V-272J	1	374722724T
C3870	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C3871	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C3872	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C3873	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C3874	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C3875	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C3876	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C3877	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C3878	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C3879	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C3880	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C3881	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C3882	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C3883	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C3884	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C3885	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C3886	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C3887	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C3888	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C3889	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C4201	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4202	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4203	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4204	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4205	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4206	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4207	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4208	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4213	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4214	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4227	TF C	ECQ-B50V-223J	1	374722234T
C4228	TF C	ECQ-B50V-223J	1	374722234T
C4229	TF C	ECQ-V50V-823J	1	374728234T
C4230	TF C	ECQ-V50V-823J	1	374728234T
C4231	TF C	ECQ-V50V-474J	1	374724744T
C4232	TF C	ECQ-V50V-474J	1	374724744T
C4233	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4234	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4235	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4236	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4237	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4238	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4239	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4240	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4291	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C4292	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C4293	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4294	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4295	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C4296	UTSP C	CE04W25V-220M(UTSP)	1	397552217T
C4720	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4721	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4722	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4723	UTSP C	CE04W50V 47M(UTSP)	1	397584707T
C4724	UTSP C	CE04W50V 47M(UTSP)	1	397584707T

C4725	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4726	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4727	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4730	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4731	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4732	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4733	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4734	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4735	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4736	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4737	UTSP C	CE04W50V 47M(UTSP)	1	397584707T	
C4740	UTSP C	CE04W25V-100M(UTSP)	1	397551017T	
C4741	UTSP C	CE04W25V-100M(UTSP)	1	397551017T	
C7002	VR C	CE04W50V-4.7M(VR)	1	394680477T	
C7003	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7004	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC, DT, MA, MP,
C7005	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7006	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7007	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7008	C-CERA C	CK725B1H-102K1	1	332101025R1	
C7009	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7010	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7011	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7012	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7013	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7014	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7015	C-CERA C	CK725B1H-102K1	1	332101025R1	
C7016	C-CERA C	CK725B1H-102K1	1	332101025R1	
C7017	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7018	C-CERA C	CK725B1H-102K1	1	332101025R1	
C7019	C-CERA C	CK725B1H-102K1	1	332101025R1	
C7020	C-CERA C	CK725B1H-102K1	1	332101025R1	
C7021	C-CERA C	CK725B1H-102K1	1	332101025R1	
C7022	C-CERA C	CC725CH1H-101J1	1	342101014R1	
C7023	C-CERA C	CC725CH1H-101J1	1	342101014R1	
C7024	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7025	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7027	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7151	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7152	VR C	CE04W16V-100M(VR)	1	394641017T	
C7155	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7161	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7165	C-CERA C	CK725F1E-104Z1	1	332161040R1	<DC>
C7166	VR C	CE04W16V-100M(VR)	1	394641017T	
C7171	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7172	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7181	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7183	VR C	CE04W16V-100M(VR)	1	394641017T	
C7201	VR C	CE04W16V-470M(VR)	1	394644717T	
C7203	VR C	CE04W6.3V-1000M(VR)	1	394621027T	
C7221	VR C	CE04W16V-470M(VR)	1	394644717T	
C7223	VR C	CE04W6.3V-1000M(VR)	1	394621027T	
C7231	VR C	CE04W16V-470M(VR)	1	394644717T	
C7233	VR C	CE04W6.3V-1000M(VR)	1	394621027T	
C7234	UTSP C	CE04W50V-10M(UTSP)	1	397581007T	<DC>
C7235	VR C	CE04W16V-100M(VR)	1	394641017T	<DC>
C7241	UTSP C	CE04W50V-10M(UTSP)	1	397581007T	
C7242	VR C	CE04W16V-100M(VR)	1	394641017T	
C7243	VR C	CE04W16V-100M(VR)	1	394641017T	
C7247	UTSP C	CE04W50V-10M(UTSP)	1	397581007T	
C7248	VR C	CE04W16V-100M(VR)	1	394641017T	
C7251	UTSP C	CE04W50V-10M(UTSP)	1	397581007T	
C7252	VR C	CE04W16V-100M(VR)	1	394641017T	
C7255	VR C	CE04W16V-470M(VR)	1	394644717T	
C7262	VR C	CE04W16V-100M(VR)	1	394641017T	
C7263	VR C	CE04W16V-100M(VR)	1	394641017T	
C7265	C-CERA C	CK732B1A-105K	1	337361055R2	
C7266	VR C	CE04W16V-100M(VR)	1	394641017T	
C7351	C-CERA C	CK732B1A-105K	1	337361055R2	
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C7365	C-CERA C	CK732B1A-105K	1	337361055R2	
C7366	C-CERA C	CK732B1A-105K	1	337361055R2	
C7371	VR C	CE04W16V-470M(VR)	1	394644717T	
C7381	VR C	CE04W16V-470M(VR)	1	394644717T	
C7382	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7383	VR C	CE04W16V-100M(VR)	1	394641017T	
C7385	VR C	CE04W16V-470M(VR)	1	394644717T	
C7386	C-CERA C	CK725F1E-104Z1	1	332161040R1	
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C7391	C-CERA C	CK725F1E-104Z1	1	332161040R1	
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R3007	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R3011	C-CARBON R	RN72K1J-750JE	1	435037504R1	
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R3865	C-CARBON R	RN72K1J-472JE	1	435034724R1
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R4293	C-CARBON R	RN72K1J-152JE	1	435031524R1	
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R4720	C-CARBON R	RN72K1J-224JE	1	435032244R1	
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R4737	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R4740	METAL O R	RS1/2WBJ-22	1	443522204T	
R4741	METAL O R	RS1/2WBJ-22	1	443522204T	
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R7101	C-CARBON R	RN72K1J-221JE	1	435032214R1	
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R7103	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R7104	C-CARBON R	RN72K1J-221JE	1	435032214R1	
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R7107	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R7108	C-CARBON R	RN72K1J-470JE	1	435034704R1	
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R7123	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R7124	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R7125	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R7126	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R7127	C-CARBON R	RN72K1J-221JE	1	435032214R1	
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R7137	C-CARBON R	RN72K1J-221JE	1	435032214R1	
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R7139	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R7141	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R7144	C-CARBON R	RN72K1J-221JE	1	435032214R1	
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R7171	C-CARBON R	RN72K1J-470JE	1	435034704R1	
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R7188	C-CARBON R	RN72K1J-104JE	1	435031044R1	
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R7191	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R7192	C-CARBON R	RN72K1J-104JE	1	435031044R1	
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R7201	METAL R	RNU1/2WCJ-2.2	1	453530224T	
R7202	C-CARBON R	RN72K1J-102JE	1	435031024R1	
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R7204	C-CARBON R	RN72K1J-272JE	1	435032724R1	
R7205	C-CARBON R	RN72K1J-472JE	1	435034724R1	
R7210	C-CARBON R	RN72K1J-000JE	1	435030004R1	
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R7223	C-CARBON R	RN72K1J-392JE	1	435033924R1	
R7224	C-CARBON R	RN72K1J-272JE	1	435032724R1	
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R7233	C-CARBON R	RN72K1J-392JE	1	435033924R1	
R7234	C-CARBON R	RN72K1J-563JE	1	435035634R1	
R7235	C-CARBON R	RN72K1J-562JE	1	435035624R1	
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R7245	METAL R	RNU1/2WCJ-5.6	1	453530564T	
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R7247	METAL R	RNU1/2WCJ-5.6	1	453530564T	
R7248	METAL R	RNU1/2WCJ-5.6	1	453530564T	
R7251	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7252	METAL O R	RS1/2WBJ-22	1	443522204T	
R7255	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7256	C-CARBON R	RN72K1J-103JE	1	435031034R1	
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R7266	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7267	C-CARBON R	RN72K1J-473JE	1	435034734R1	
R7268	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7269	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7270	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7271	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7272	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7273	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7275	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7278	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7279	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7280	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7281	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7282	C-CARBON R	RN72K1J-103JE	1	435031034R1	

R7283	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7284	C-CARBON R	RN72K1J-101JE	1	435031014R1	
R7285	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R7286	C-CARBON R	RN72K1J-101JE	1	435031014R1	
R7287	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7288	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7289	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7290	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7291	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7292	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7293	C-CARBON R	RN72K1J-272JE	1	435032724R1	
R7294	C-CARBON R	RN72K1J-272JE	1	435032724R1	
R7295	C-CARBON R	RN72K1J-272JE	1	435032724R1	
R7296	C-CARBON R	RN72K1J-272JE	1	435032724R1	
R7299	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7300	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7301	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7302	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7303	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7351	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7352	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7353	C-CARBON R	RN72K1J-102JE	1	435031024R1	
R7355	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7356	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7357	C-CARBON R	RN72K1J-102JE	1	435031024R1	
R7361	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7362	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7363	C-CARBON R	RN72K1J-102JE	1	435031024R1	
R7365	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7366	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7367	C-CARBON R	RN72K1J-102JE	1	435031024R1	
R7371	C-CARBON R	RN72K1J-470JE	1	435034704R1	
R7391	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7392	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7401	C-CARBON R	RN72K1J-220JE	1	435032204R1	
R7402	C-CARBON R	RN72K1J-220JE	1	435032204R1	
R7403	C-CARBON R	RN72K1J-000JE	1	435030004R1	
R7404	C-CARBON R	RN72K1J-273JE	1	435032734R1	
R7411	C-CARBON R	RN72K1J-000JE	1	435030004R1	<DC, DT, MA, MP,
R7413	C-CARBON R	RN72K1J-000JE	1	435030004R1	<DC, DT, MA, MP,
R7414	C-CARBON R	RN72K1J-000JE	1	435030004R1	<DC, DT, MA, MP,
R7415	C-CARBON R	RN72K1J-222JE	1	435032224R1	<DT, MA, MP, MK,
R7416	C-CARBON R	RN72K1J-222JE	1	435032224R1	<DT, MA, MP, MK,
R7417	C-CARBON R	RN72K1J-392JE	1	435033924R1	<DT, MA, MP, MK,
R7418	C-CARBON R	RN72K1J-392JE	1	435033924R1	<DT, MA, MP, MK,
R7421	C-CARBON R	RN72K1J-000JE	1	435030004R1	
R7425	C-CARBON R	RN72K1J-000JE	1	435030004R1	<DC, DT, MA, MP,
E101	TRM(SCREW)	NEJITANSI M3	1	25065425	<DC>
E102	TRM(SCREW)	NEJITANSI M3	1	25065425	<DC>
JL9501A	SOCKET	NSCT-6P111	1	25050283	
P101B	SOCKET	NSCT-13P2106	1	25052209	<DC, DT, MA, MP,
P101Bor	SOCKET	NSCT-13P1607	(1)	25051820	<DC, DT, MA, MP,
P102A	SOCKET	NSCT-18P2148	1	25052251	<DC>
P102Aor	SOCKET	NSCT-18P1649	(1)	25051862	<DC>
P102B	SOCKET	NSCT-18P2111	1	25052214	<DC>
P102Bor	SOCKET	NSCT-18P1612	(1)	25051825	<DC>
P121	SOCKET	YKF51-5397N	1	25053201	<DC>
P122	SOCKET	CAM-C16	1	25053104R2	<DC>
P122A	RETAINER	(XM)	1	27142048	<DC>
P2010B	SOCKET	IMSA-9142S-24A	1	25053234	
P2998	TRM	NTM-1P232(M1700)	1	25060301	
P2999	TRM	NTM-1P232(M1700)	1	25060301	
P3001	PIN JACK	NPJ-3PDO656	1	25045884	
P3001 or	PIN JACK	NPJ-3PDO465	(1)	25045666	
P3002	ST JACK	MSJ-035-22	1	25045887	
P3002 or	JACK	YKB21-5130	(1)	25045387	
P3003	SOCKET	7906-09FHA	1	25053103	
P3101A	PLUG	IMSA-9142B-24A	1	25056602	
P3102A	PLUG	IMSA-9142B-14A	1	25056597	
P3103A	PLUG	IMSA-9142B-16A	1	25056598	
P3801A	PLUG	IMSA-9855B-30D-T	1	25056604	
P3802A	PLUG	IMSA-9855B-30D-T	1	25056604	
P4020B	SOCKET	IMSA-9142S-26A	1	25053235	
P4021B	SOCKET	IMSA-9142S-26A	1	25053235	
P4032B	SOCKET	NSCT-8P1023	1	25051233	
P4033B	SOCKET	NSCT-13P1028	1	25051238	
P4110	SOCKET	9210B-1-10Z140-PT1	1	25053247	
P4111	SOCKET	9210B-1-09Z140-PT1	1	25053249	
P6851A	PLUG	IMSA-9142B-20A	1	25056600	
P6852A	PLUG	IMSA-9142B-20A	1	25056600	
P6853A	PLUG	IMSA-9142B-20A	1	25056600	
P7001	SOCKET	NSCT-9P2427	1	25052530	
P7002	TRM(SCREW)	NEJITANSI M3	1	25065425	
P7210B	PLUG	NPLG-9P356	1	25055373	
P7501A	SOCKET	NSCT-40P2170	1	25052273	
P8002A	PLUG	NPLG-15P667	1	25055711	

U33	**DISPLAY PC BOARD (NADIS-9085-1A/1B)**
U34	**DISPLAY PC BOARD (NADIS-9086-1A/1B)**
U35	**SWITCH PC BOARD (NASW-9087-1A/1B)**
U36	**HEADPHONE PC BOARD (NAETC-9088-1A/1B)**
U37	**POWER SUPPLY PC BOARD (NAPSS-9089-1A/1B)**
U38	**FRONT OPT PC BOARD (NAETC-9090-1A/1B)**
U39	**VOLUME PC BOARD (NAETC-9091-1A/1B)**

REF. NO.	PART NAME	DESCRIPTION	Q'TY	PART NO. (SN)	REMARKS
U7520	PHT CP	TORX177L	1	24120127	
U7560	REMO SENS	NJL34H380A	1	241365	
Q7500	FL TUBE	HNA-16SL04T	1	212266	
Q7500A	HOLDER	(FL)	1	27191303	
Q7501	IC	M66005-0001AHP	1	22242208R3	
Q7502	IC	M66005-0001AHP	1	22242208R3	
Q7503	TR	2SC2712-GR	1	2213145R2	
Q7503 or	TR	2SC2712-Y(TE85L_F)	(1)	2213144R2	
Q7504	TR	2SC2712-GR	1	2213145R2	
Q7504 or	TR	2SC2712-Y(TE85L_F)	(1)	2213144R2	
Q7520	IC	NE5532APSR	1	22242283R2	
Q7530	IC	NJM4580M-D	1	22241448R2	
Q7532	TR	RN1441	1	2215410R2	
Q7533	TR	RN2403	1	2214540R2	
Q7533 or	TR	DTA124EKA	(1)	2216240R2	
Q7533 or	TR	KRA103S	(1)	2216230R2	
Q7591	TR	DTC123JKA	1	2216690R2	
Q7592	TR	DTC123JKA	1	2216690R2	
Q7592	TR	DTC123JKA	1	2216690R2	
Q7593	TR	DTC123JKA	1	2216690R2	
Q7594	TR	DTC123JKA	1	2216690R2	<DT, MA, MP, MK,
Q7597	TR	DTC123JKA	1	2216690R2	
Q7598	TR	DTC123JKA	1	2216690R2	
Q7611	IC	TC74VHC08F(EL_K_F)	1	22242492R2	
Q7611 or	IC	TC74VHC08F(EL_F)	1	22241029R2	
Q9301	TR	2SC2235-Y(TPE6_F)	1	2211654T	
Q9301 or	TR	2SC2235-O(TPE6_F)	(1)	2211653T	
D7500	ZENER D	UDZS10B	1	224551000R2	
D7520	C-DIODE	1SS355	1	223269R2	
D7521	C-DIODE	1SS355	1	223269R2	
D7522	C-DIODE	1SS355	1	223269R2	
D7523	C-DIODE	1SS355	1	223269R2	
D7530	ZENER D	UDZS5.1B	1	224550510R2	
D7531	C-DIODE	1SS355	1	223269R2	
D7532	C-DIODE	1SS355	1	223269R2	
D7560	C-DIODE	1SS355	1	223269R2	
D7561	C-DIODE	1SS355	1	223269R2	
D7570	SPCF D	SIR-34ST3F	1	225456	
D7580	C-DIODE	1SS355	1	223269R2	
D7581	C-DIODE	1SS355	1	223269R2	
D7582	C-DIODE	1SS355	1	223269R2	
D7583	C-DIODE	1SS355	1	223269R2	
D7590	LED	SDPB3DD0C0000-ABCDEF	1	225473	
D7590a	HOLDER	(LED)LH-5-5	1	27191312	
D7591	LED	SDPB3DD0C0000-ABCDEF	1	225473	
D7592	LED	SLR-342MGTE7P	1	225455T	
D7593	LED	SLR-342MGTE7P	1	225455T	
D7593 or	LED	SEL4310G-D	(1)	225292DT	
D7593 or	LED	SEL4410G	(1)	225454T	
D7594	LED	SEL2810A-TP2	1	225388T	<DT, MA, MP, MK,
D7594	LED	SLI-343URC-TE7	1	225449T	<DC>
D7595	LED	SLI-343URC-TE7	1	225449T	
D9303	DIODE	D10XB60H	1	22380337F	
D9306	ZENER D	MTZJ22B	1	224472202T	
D9307	DIODE	1SS133	1	223163T	
D9308	DIODE	1SS133	1	223163T	
D9310	ZENER D	MTZJ24B	1	224472402T	
D9311	ZENER D	MTZJ5.1B	1	224470512T	
D9312	DIODE	RL1N4003	1	22380260T	
D9312 or	DIODE	GP104003E	(1)	22380035T	
D9313	DIODE	RL1N4003	1	22380260T	
D9313 or	DIODE	GP104003E	(1)	22380035T	
D9314	DIODE	RL1N4003	1	22380260T	
D9314 or	DIODE	GP104003E	(1)	22380035T	
D9315	DIODE	RL1N4003	1	22380260T	
D9315 or	DIODE	GP104003E	(1)	22380035T	
L7520	CHOKE COIL	NCH-1561 022K	1	233526K022T	
L7530	CHOKE COIL	NCH-1561 022K	1	233526K022T	
L7580	CHOKE COIL	NCH-1561 022K	1	233526K022T	
L7581	CHOKE COIL	NCH-1561 022K	1	233526K022T	
L7582	CHOKE COIL	NCH-1561 022K	1	233526K022T	
C7501	C-CERA C	CK725B1H-223K1	1	332102235R1	
C7502	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7503	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7504	C-CERA C	CK725B1H-473K1	1	332104735R1	
C7505	C-CERA C	CK725B1H-473K1	1	332104735R1	

C7506	ELECT C	CE04W50V-33M	1	355783309T	
C7511	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7512	C-CERA C	CC725CH1H-180J1	1	342101804R1	
C7513	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7514	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7518	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7519	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C7520	C-CERA C	CK725B1H-223K1	1	332102235R1	
C7521	UTSP C	CE04W10V-100M(UTSP)	1	397531017T	
C7522	C-CERA C	CC725CH1H-221J1	1	342102214R1	
C7523	C-CERA C	CC725CH1H-221J1	1	342102214R1	
C7524	C-CERA C	CK725B1H-102K1	1	332101025R1	
C7530	C-CERA C	CK725B1H-102K1	1	332101025R1	
C7531	C-CERA C	CK725B1H-102K1	1	332101025R1	
C7533	ELECT C	CE04W35V-47M	1	355764709T	
C7534	ELECT C	CE04W35V-47M	1	355764709T	
C7535	ELECT C	CE04W35V-10M(S)	1	353761009T	
C7536	C-CERA C	CC725CH1H-101J1	1	342101014R1	
C7537	C-CERA C	CC725CH1H-330J1	1	342103304R1	
C7538	ELECT C	CE04W35V-10M(S)	1	353761009T	
C7539	ELECT C	CE04W35V-10M(S)	1	353761009T	
C7540	ELECT C	CE04W35V-10M(S)	1	353761009T	
C7543	C-CERA C	CK725B1H-102K1	1	332101025R1	
C7560	ELECT C	CE04W6.3V-220M	1	355722219T	
C7561	C-CERA C	CK725B1H-102K1	1	332101025R1	
C7562	C-CERA C	CK725B1H-102K1	1	332101025R1	
C7580	C-CERA C	CK725B1H-102K1	1	332101025R1	
C7581	C-CERA C	CK725B1H-102K1	1	332101025R1	
C7582	C-CERA C	CK725B1H-102K1	1	332101025R1	
C7583	C-CERA C	CK725B1H-102K1	1	332101025R1	
C7590	C-CERA C	CK725B1H-103K1	1	332101035R1	
C7591	C-CERA C	CK725B1H-103K1	1	332101035R1	
C7900	C-CERA C	CK725F1E-104Z1	1	332161040R1	
C9302	VR C	CE04W16V-10000M(VR)	1	394641037S	
C9304	VR C	CE04W63V-470M(VR)	1	394674717S	
C9305	VR C	CE04W63V-47M(VR)	1	394674707T	
C9306	TF C	ECQ-B50V-223J	1	374722234T	
C9307	TF C	ECQ-V50V-334J	1	374723344T	
C9308	UTSP C	CE04W50V-4.7M(UTSP)	1	397580477T	
R7500	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R7501	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R7502	C-CARBON R	RN72K1J-273JE	1	435032734R1	
R7503	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7504	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7505	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7506	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7507	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7508	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7509	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7510	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7520	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R7521	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R7522	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R7523	C-CARBON R	RN72K1J-750JE	1	435037504R1	
R7524	C-CARBON R	RN72K1J-750JE	1	435037504R1	
R7525	C-CARBON R	RN72K1J-750JE	1	435037504R1	
R7526	C-CARBON R	RN72K1J-223JE	1	435032234R1	
R7527	C-CARBON R	RN72K1J-223JE	1	435032234R1	
R7528	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R7529	C-CARBON R	RN72K1J-224JE	1	435032244R1	
R7530	C-CARBON R	RN72K1J-472JE	1	435034724R1	
R7531	C-CARBON R	RN72K1J-101JE	1	435031014R1	
R7532	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R7533	C-CARBON R	RN72K1J-182JE	1	435031824R1	
R7534	C-CARBON R	RN72K1J-104JE	1	435031044R1	
R7535	C-CARBON R	RN72K1J-102JE	1	435031024R1	
R7536	C-CARBON R	RN72K1J-333JE	1	435033334R1	
R7537	C-CARBON R	RN72K1J-333JE	1	435033334R1	
R7538	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R7539	C-CARBON R	RN72K1J-221JE	1	435032214R1	
R7540	C-CARBON R	RN72K1J-473JE	1	435034734R1	
R7560	C-CARBON R	RN72K1J-102JE	1	435031024R1	
R7561	C-CARBON R	RN72K1J-101JE	1	435031014R1	
R7580	METAL O R	RS1WBJ-33	1	443623304T	
R7581	METAL O R	RS1WBJ-33	1	443623304T	
R7590	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7591	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7592	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7593	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7594	C-CARBON R	RN72K1J-121JE	1	435031214R1	
R7595	C-CARBON R	RN72K1J-121JE	1	435031214R1	
R7596	C-CARBON R	RN72K1J-181JE	1	435031814R1	
R7597	C-CARBON R	RN72K1J-181JE	1	435031814R1	
R7598	C-CARBON R	RN72K1J-151JE	1	435031514R1	<DC>
R7598	C-CARBON R	RN72K1J-221JE	1	435032214R1	<DT, MA, MP, MK,
R7599	C-CARBON R	RN72K1J-151JE	1	435031514R1	<DT, MA, MP, MK,

R7611	C-CARBON R	RN72K1J-271JE	1	435032714R1	
R7612	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R7613	C-CARBON R	RN72K1J-471JE	1	435034714R1	
R7614	C-CARBON R	RN72K1J-561JE	1	435035614R1	
R7615	C-CARBON R	RN72K1J-821JE	1	435038214R1	
R7616	C-CARBON R	RN72K1J-122JE	1	435031224R1	
R7617	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7618	C-CARBON R	RN72K1J-392JE	1	435033924R1	
R7621	C-CARBON R	RN72K1J-271JE	1	435032714R1	
R7622	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R7623	C-CARBON R	RN72K1J-471JE	1	435034714R1	
R7624	C-CARBON R	RN72K1J-561JE	1	435035614R1	
R7625	C-CARBON R	RN72K1J-821JE	1	435038214R1	
R7626	C-CARBON R	RN72K1J-122JE	1	435031224R1	
R7627	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7628	C-CARBON R	RN72K1J-392JE	1	435033924R1	
R7629	C-CARBON R	RN72K1J-123JE	1	435031234R1	
R7631	C-CARBON R	RN72K1J-271JE	1	435032714R1	
R7632	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R7633	C-CARBON R	RN72K1J-471JE	1	435034714R1	
R7634	C-CARBON R	RN72K1J-561JE	1	435035614R1	
R7635	C-CARBON R	RN72K1J-821JE	1	435038214R1	
R7636	C-CARBON R	RN72K1J-122JE	1	435031224R1	
R7637	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7638	C-CARBON R	RN72K1J-392JE	1	435033924R1	
R7639	C-CARBON R	RN72K1J-123JE	1	435031234R1	
R7641	C-CARBON R	RN72K1J-271JE	1	435032714R1	
R7642	C-CARBON R	RN72K1J-331JE	1	435033314R1	
R7643	C-CARBON R	RN72K1J-471JE	1	435034714R1	
R7644	C-CARBON R	RN72K1J-561JE	1	435035614R1	
R7645	C-CARBON R	RN72K1J-821JE	1	435038214R1	
R7646	C-CARBON R	RN72K1J-122JE	1	435031224R1	
R7647	C-CARBON R	RN72K1J-222JE	1	435032224R1	
R7648	C-CARBON R	RN72K1J-392JE	1	435033924R1	
R7649	C-CARBON R	RN72K1J-123JE	1	435031234R1	
R7802	C-CARBON R	RN72K1J-103JE	1	435031034R1	
R7939	C-CARBON R	RN72K1J-104JE	1	435031044R1	
R7954	C-CARBON R	RN72K1J-104JE	1	435031044R1	
R9304	NF CARBON R	R25J-10	1	415471004T	
R9305	CARBON R	R16J-5.6K	1	417345624T	
R9307	CARBON R	R16J-33K	1	417343334T	
R9308	METAL R	RNU1/2WCJ-1	1	453530104T	
R9309	CARBON R	R16J-10K	1	417341034T	
R9310	NF CARBON R	R25J-10	1	415471004T	
E7580	TRM	NTM-1P233(M1969)	1	25060302	
JL4103B	SOCKET	NSCT-5P97	1	25050269	
JL7560A	WIRE HOL	NSCT-3P874	1	25051087	
JL7560B	WIRE HOL	NSCT-3P874	1	25051087	
JL7590A	WIRE HOL	NSCT-9P880	1	25051093	
JL7590B	WIRE HOL	NSCT-9P880	1	25051093	
JL7591A	WIRE HOL	NSCT-6P877	1	25051090	
JL7591B	WIRE HOL	NSCT-6P877	1	25051090	
JL9303A	WIRE HOL	NSCT-4P875	1	25051088	
JL9303B	WIRE TRAP	NPLG-4P587	1	25055625	
JL9501B	WIRE HOL	NSCT-6P897	1	25051110	
P7501B	SOCKET	NSCT-40P2170	1	25052273	
P7522	PIN JACK	NPJ-7PDB477	1	25045680	
P7530	ST JACK	MSJ-035-05C B AG SR type	1	25045879	
P7530 or	JACK	LGT1516-0101	(1)	25045396	
P7580	ST JACK	MSJ-064-05A SR	1	25045783	
P7999	WS CLAMP	CB-71683(L=50)	1	260261	
P9008B	PLUG	NPLG-2P631	1	25055675	!, <DT, MP, MA, M
P9301A	PLUG	NPLG-6P120	1	25055136	
S7590	R ENCODE	EC12E2425WITH WASHER	1	25065655W	
S7611	PUSH SW	NPS-111-S681	1	25035718T	
S7611 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7612	PUSH SW	NPS-111-S681	1	25035718T	
S7612 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7613	PUSH SW	NPS-111-S681	1	25035718T	
S7613 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7614	PUSH SW	NPS-111-S681	1	25035718T	
S7614 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7615	PUSH SW	NPS-111-S681	1	25035718T	
S7615 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7616	PUSH SW	NPS-111-S681	1	25035718T	
S7616 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7618	PUSH SW	NPS-111-S681	1	25035718T	
S7618 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7619	PUSH SW	NPS-111-S681	1	25035718T	
S7619 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7621	PUSH SW	NPS-111-S681	1	25035718T	
S7621 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7622	PUSH SW	NPS-111-S681	1	25035718T	
S7622 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7623	PUSH SW	NPS-111-S681	1	25035718T	
S7623 or	PUSH SW	NPS-111-S677	(1)	25035714T	

S7624	PUSH SW	NPS-111-S681	1	25035718T	
S7624 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7625	PUSH SW	NPS-111-S681	1	25035718T	
S7625 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7626	PUSH SW	NPS-111-S681	1	25035718T	
S7626 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7627	PUSH SW	NPS-111-S681	1	25035718T	
S7627 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7628	PUSH SW	NPS-111-S681	1	25035718T	
S7628 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7630	PUSH SW	NPS-111-S681	1	25035718T	
S7630 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7631	PUSH SW	NPS-111-S681	1	25035718T	
S7631 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7632	PUSH SW	NPS-111-S681	1	25035718T	
S7632 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7633	PUSH SW	NPS-111-S681	1	25035718T	
S7633 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7634	PUSH SW	NPS-111-S681	1	25035718T	
S7634 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7635	PUSH SW	NPS-111-S681	1	25035718T	
S7635 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7636	PUSH SW	NPS-111-S681	1	25035718T	
S7636 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7637	PUSH SW	NPS-111-S681	1	25035718T	
S7637 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7638	PUSH SW	NPS-111-S681	1	25035718T	
S7638 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7639	PUSH SW	NPS-111-S681	1	25035718T	
S7639 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7640	PUSH SW	NPS-111-S681	1	25035718T	
S7640 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7641	PUSH SW	NPS-111-S681	1	25035718T	
S7641 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7642	PUSH SW	NPS-111-S681	1	25035718T	
S7642 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7643	PUSH SW	NPS-111-S681	1	25035718T	
S7643 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7644	PUSH SW	NPS-111-S681	1	25035718T	
S7644 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7645	PUSH SW	NPS-111-S681	1	25035718T	
S7645 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7646	PUSH SW	NPS-111-S681	1	25035718T	
S7646 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7647	PUSH SW	NPS-111-S681	1	25035718T	
S7647 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7648	PUSH SW	NPS-111-S681	1	25035718T	
S7648 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7649	PUSH SW	NPS-111-S681	1	25035718T	
S7649 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S7650	PUSH SW	NPS-111-S681	1	25035718T	
S7650 or	PUSH SW	NPS-111-S677	(1)	25035714T	
S9000	P SW	NPS-111-L590P	1	25035636	!, <DT, MA, MP, MI

U42 HDMI PC BOARD (NAHDM-9107-1A)

REF. NO.	PART NAME	DESCRIPTION	Q'TY	PART NO. (SN)	REMARKS
Q8001	IC	FLI8125-LF-BC	1	22242389R3	
Q8002	IC	TC74VCX162244FT(EL_F)	1	2227C244DR2TO	
Q8003	IC	TC74VCX162244FT(EL_F)	1	2227C244DR2TO	
Q8004	IC	BA18BC0FP	1	22278018DR2RH	
Q8004 or	IC	TA48018AF(TE16L_NQ)	(1)	22278018DR2TO	
Q8004 or	IC	UPC2918T-E1-AZ	(1)	22278018ER2NE	
Q8005	IC	BA33BC0FP	1	22278033DR2RH	
Q8005 or	IC	NJM2391DL1-33	(1)	22278033DR2JR	
Q8005 or	IC	TA48033AF(TE16L_NQ)	(1)	22278033DR2TO	
Q8005 or	IC	UPC2933TAT-E1-A	(1)	22278033DR2NE	
Q8006	IC	SI8008TM	1	22242323R2	
Q8010	IC	S-24CS16A0I-J8V1G	1	22242326R2	
Q8011	IC	SST25VF080B-50-4C-S2AF	1	222W0064R2	
Q8101	IC	AD8196	1	22242408R2	NRP
Q8151	IC	BA33BC0FP	1	22278033DR2RH	
Q8151 or	IC	NJM2391DL1-33	(1)	22278033DR2JR	
Q8151 or	IC	TA48033AF(TE16L_NQ)	(1)	22278033DR2TO	
Q8151 or	IC	UPC2933TAT-E1-A	(1)	22278033DR2NE	
Q8204	TR	DTA144EE	1	2216380R2	
Q8206	TR	DTC144EE	1	2216390R2	
Q8207	TR	2SK3019	1	2216520R2	
Q8208	IC	SN74CB3T3306DCT	1	22242454R2	
Q8210	IC	S-24CS02AFT-V-G	1	22242360R2	
Q8210 or	IC	BR24L02FV-W	(1)	22242069R2	
Q8305	IC	S-812C50BUC-C5ET2G	1	22242407R2	
Q8306	IC	TC7SZ08FU(TE85L_F)	1	22242071R2TO	
Q8306 or	IC	NC7SZ08P5X_F042	1	22242482R2	
Q8309	TR ARRAY	UM6K1N	1	226066R2	
Q8309 or	TR ARRAY	UPA672T	(1)	226067R2	

Q8401	IC	SII9134CTU	1	22242394R3	
Q8404	IC	XC6213B182MR	1	22242443R2	
Q8405	IC	SN74CB3Q3305PWR	1	22242258R2	
Q8501	IC	SII9135CTU	1	22242393R3	NRP
Q8504	TR	DTA144EE	1	2216380R2	
Q8506	TR	DTC144EE	1	2216390R2	
Q8507	TR	2SK3019	1	2216520R2	
Q8508	IC	SN74CB3T3306DCT	1	22242454R2	
Q8510	IC	S-24CS02AFT-V-G	1	22242360R2	
Q8510 or	IC	BR24L02FV-W	(1)	22242069R2	
Q8592	IC	SI8008TM	1	22242323R2	
Q8593	IC	SI8008TM	1	22242323R2	
Q8595	IC	BA18BC0FP	1	22278018DR2RH	
Q8595 or	IC	TA48018AF(TE16L_NQ)	(1)	22278018DR2TO	
Q8595 or	IC	UPC2918T-E1-AZ	(1)	22278018ER2NE	
Q8604	TR	DTA144EE	1	2216380R2	
Q8606	TR	DTC144EE	1	2216390R2	
Q8607	TR	2SK3019	1	2216520R2	
Q8608	IC	SN74CB3T3306DCT	1	22242454R2	
Q8610	IC	S-24CS02AFT-V-G	1	22242360R2	
Q8610 or	IC	BR24L02FV-W	(1)	22242069R2	
Q8651	IC	BA18BC0FP	1	22278018DR2RH	
Q8651 or	IC	TA48018AF(TE16L_NQ)	(1)	22278018DR2TO	
Q8651 or	IC	UPC2918T-E1-AZ	(1)	22278018ER2NE	
Q8652	IC	XC6213B332MR	1	22242277R2	
Q8653	IC	BA33BC0FP	1	22278033DR2RH	
Q8653 or	IC	NJM2391DL1-33	(1)	22278033DR2JR	
Q8653 or	IC	TA48033AF(TE16L_NQ)	(1)	22278033DR2TO	
Q8653 or	IC	UPC2933TAT-E1-A	(1)	22278033DR2NE	
Q8654	IC	BA18BC0FP	1	22278018DR2RH	
Q8654 or	IC	TA48018AF(TE16L_NQ)	(1)	22278018DR2TO	
Q8654 or	IC	UPC2918T-E1-AZ	(1)	22278018ER2NE	
Q8701	IC	MPD70F3716GC-8EA	1	222W0054R3	
Q8801	IC	ADV7172	1	22242155R3	
D8001	C-DIODE	CRS09(TE85L_Q)	1	223274R2	
D8301	C-DIODE	1SS226(TE85L_F)	1	223266R2	
D8301 or	DIODE	DAN217T146	(1)	223285R2	
D8302	C-DIODE	1SS352	1	223234R2	
D8302 or	C-DIODE	1SS355	(1)	223269R2	
D8591	C-DIODE	CRS09(TE85L_Q)	1	223274R2	
D8592	C-DIODE	CRS09(TE85L_Q)	1	223274R2	
D8701	C-DIODE	1SS352	1	223234R2	
D8701 or	C-DIODE	1SS355	(1)	223269R2	
L8001	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8002	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8003	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8004	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L8005	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L8006	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L8007	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L8008	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L8009	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8010	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8012	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8014	CHOKE COIL	NCH-2541	1	231363K470	
L8015	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8016	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L8018	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L8019	C-CARBON R	RN72K1J-100JE	1	435031004R1	
L8101	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L8102	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	
L8401	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8402	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8403	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8404	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8405	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8406	C-R NET	MNR12E0APJ000	1	43464900002R2	
L8407	C-R NET	MNR12E0APJ000	1	43464900002R2	
L8408	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8409	C-R NET	MNR12E0APJ000	1	43464900002R2	
L8410	C-R NET	MNR12E0APJ000	1	43464900002R2	
L8505	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8507	CHOKE COIL	NCH-2541	1	231363K470	
L8508	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8525	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8527	CHOKE COIL	NCH-2541	1	231363K470	
L8528	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8601	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8602	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8603	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8604	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8605	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8606	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8607	CHOKE COIL	BLM21PG221SN1	1	230949R2	
L8608	EMIFIL	BK1608LL241-T	1	230959R1	
L8701	CHOKE COIL	LBC2518T4R7M	1	231364M047R2	

L8801	CHOKE COIL	LBC2518T4R7M	1	231364M047R2
L8901	CHOKE COIL	LBC2518T2R2M	1	231364M022R2
L8902	CHOKE COIL	LBC2518T2R2M	1	231364M022R2
L8903	CHOKE COIL	LBC2518T2R2M	1	231364M022R2
L8904	CHOKE COIL	LBC2518T2R2M	1	231364M022R2
L8905	CHOKE COIL	LBC2518T2R2M	1	231364M022R2
L8906	CHOKE COIL	LBC2518T2R2M	1	231364M022R2
X8001	CRYSTAL	FCX-03-19.6608M	1	3010439R2
X8501	CRYSTAL	HC-49-28.332MHz	1	3010417R2
X8701	CERA LOCK	CSTCR5M00G53-B0	1	3010356R2
C8000	CD C	UCD1E221MNL1GS	1	396652217R2
C8001	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8002	C-CERA C	CK725B1H-102K1	1	332101025R1
C8003	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8004	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8005	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8006	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8007	C-CERA C	CC725CH1H-120J1	1	342101204R1
C8008	C-CERA C	CC725CH1H-120J1	1	342101204R1
C8009	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8010	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8011	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8012	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8013	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8014	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8015	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8016	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8017	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8018	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8019	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8020	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8021	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8022	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8023	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8024	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8025	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8026	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8027	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8028	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8029	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8030	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8031	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8032	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8033	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8034	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8035	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8036	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8037	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8038	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8039	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8040	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8041	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8042	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8043	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8044	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8045	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8046	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8047	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8048	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8049	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8051	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8052	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8053	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8055	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8056	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8057	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8060	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8061	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8062	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8063	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8064	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8065	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8066	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8067	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8068	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8069	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8070	CHIP ELECT C	CEWX4V-100M	1	3981G1017R2
C8071	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8072	CHIP ELECT C	CEWX4V-100M	1	3981G1017R2
C8073	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8075	CD C	UCD1A471MNL1GS	1	396634717R2
C8076	CD C	UCD1E221MNL1GS	1	396652217R2
C8077	C-CERA C	CK725B1H-223K1	1	332102235R1
C8078	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8081	CHIP ELECT C	CEWX4V-100M	1	3981G1017R2
C8082	C-CERA C	CK725F1E-104Z1	1	332161040R1

C8083	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8084	CHIP ELECT C	CEWX4V-100M	1	3981G1017R2
C8085	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8086	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8101	C-CERA C	CK725B1H-102K1	1	332101025R1
C8103	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8104	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8105	C-CERA C	CK725B1H-102K1	1	332101025R1
C8106	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8107	C-CERA C	CK725B1H-102K1	1	332101025R1
C8108	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8109	C-CERA C	CK725B1H-102K1	1	332101025R1
C8110	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8111	C-CERA C	CK725B1H-102K1	1	332101025R1
C8112	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8113	C-CERA C	CK725B1H-102K1	1	332101025R1
C8114	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8115	C-CERA C	CK725B1H-102K1	1	332101025R1
C8116	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8117	C-CERA C	CK725B1H-102K1	1	332101025R1
C8118	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8119	C-CERA C	CK725B1H-102K1	1	332101025R1
C8120	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8121	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8123	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8124	C-CERA C	CK725B1H-102K1	1	332101025R1
C8125	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8126	C-CERA C	CK725B1H-102K1	1	332101025R1
C8127	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8128	C-CERA C	CK725B1H-102K1	1	332101025R1
C8129	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8151	CHIP ELECT C	CEWX4V-100M	1	3981G1017R2
C8152	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8281	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8292	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8293	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8298	C-CERA C	CK725B1H-102K1	1	332101025R1
C8299	C-CERA C	CK725B1H-102K1	1	332101025R1
C8326	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8327	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8328	CHIP ELECT C	CEWX16V-22M	1	398142207R2
C8329	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8330	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8348	C-CERA C	CK725B1H-102K1	1	332101025R1
C8399	C-CERA C	CK725B1H-102K1	1	332101025R1
C8401	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8402	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8403	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8404	C-CERA C	CK725B1H-102K1	1	332101025R1
C8405	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8406	C-CERA C	CK725B1H-102K1	1	332101025R1
C8408	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8409	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8410	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8411	C-CERA C	CK725B1H-102K1	1	332101025R1
C8412	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8413	C-CERA C	CK725B1H-102K1	1	332101025R1
C8414	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8415	C-CERA C	CK725B1H-102K1	1	332101025R1
C8416	C-CERA C	CK725B1H-102K1	1	332101025R1
C8417	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8418	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8419	C-CERA C	CK725B1H-102K1	1	332101025R1
C8420	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8421	C-CERA C	CK725B1H-102K1	1	332101025R1
C8422	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8423	C-CERA C	CK725B1H-102K1	1	332101025R1
C8424	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8425	C-CERA C	CK725B1H-102K1	1	332101025R1
C8426	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8427	C-CERA C	CK725B1H-102K1	1	332101025R1
C8428	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8429	C-CERA C	CK725B1H-102K1	1	332101025R1
C8430	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8431	C-CERA C	CK725B1H-102K1	1	332101025R1
C8432	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8433	C-CERA C	CK725B1H-102K1	1	332101025R1
C8434	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8435	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8441	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8442	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8443	CHIP ELECT C	CEWX4V-220M	1	3981G2217R2
C8444	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8501	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8502	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8503	C-CERA C	CK725B1H-102K1	1	332101025R1

C8504	C-CERA C	CK725B1H-102K1	1	332101025R1
C8505	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8506	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8507	C-CERA C	CK725B1H-102K1	1	332101025R1
C8508	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8509	C-CERA C	CK725B1H-102K1	1	332101025R1
C8510	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8511	C-CERA C	CK725B1H-102K1	1	332101025R1
C8512	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8513	C-CERA C	CK725B1H-102K1	1	332101025R1
C8514	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8515	C-CERA C	CK725B1H-102K1	1	332101025R1
C8516	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8517	C-CERA C	CK725B1H-102K1	1	332101025R1
C8518	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8519	C-CERA C	CK725B1H-102K1	1	332101025R1
C8520	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8521	C-CERA C	CK725B1H-102K1	1	332101025R1
C8522	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8523	C-CERA C	CK725B1H-102K1	1	332101025R1
C8524	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8529	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8530	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8531	C-CERA C	CK725B1H-102K1	1	332101025R1
C8532	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8533	C-CERA C	CK725B1H-102K1	1	332101025R1
C8534	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8535	C-CERA C	CK725B1H-102K1	1	332101025R1
C8536	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8537	C-CERA C	CK725B1H-102K1	1	332101025R1
C8538	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8539	C-CERA C	CK725B1H-102K1	1	332101025R1
C8540	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8541	C-CERA C	CK725B1H-102K1	1	332101025R1
C8542	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8543	C-CERA C	CK725B1H-102K1	1	332101025R1
C8544	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8545	C-CERA C	CK725B1H-102K1	1	332101025R1
C8546	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8547	C-CERA C	CK725B1H-102K1	1	332101025R1
C8548	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8549	C-CERA C	CK725B1H-102K1	1	332101025R1
C8550	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8551	C-CERA C	CK725B1H-102K1	1	332101025R1
C8552	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8553	C-CERA C	CK725B1H-102K1	1	332101025R1
C8554	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8555	C-CERA C	CK725B1H-102K1	1	332101025R1
C8556	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8557	C-CERA C	CK725B1H-102K1	1	332101025R1
C8558	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8559	C-CERA C	CK725B1H-102K1	1	332101025R1
C8560	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8561	C-CERA C	CK725B1H-102K1	1	332101025R1
C8562	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8563	C-CERA C	CK725B1H-102K1	1	332101025R1
C8564	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8565	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8566	C-CERA C	CK725B1H-102K1	1	332101025R1
C8567	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8568	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8569	C-CERA C	CK725B1H-102K1	1	332101025R1
C8570	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8571	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8572	C-CERA C	CK725B1H-102K1	1	332101025R1
C8573	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8574	C-CERA C	CC725CH1H-070D1	1	342100702R1
C8575	C-CERA C	CC725CH1H-070D1	1	342100702R1
C8581	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8592	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8593	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8598	C-CERA C	CK725B1H-102K1	1	332101025R1
C8599	C-CERA C	CK725B1H-102K1	1	332101025R1
C8601	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8602	CHIP ELECT C	CEWX4V-100M	1	3981G1017R2
C8603	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8604	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8605	CHIP ELECT C	CEWX4V-220M	1	3981G2217R2
C8606	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8607	CHIP ELECT C	CEWX4V-100M	1	3981G1017R2
C8608	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8609	CHIP ELECT C	CEWX4V-100M	1	3981G1017R2
C8662	C-CERA C	CK725B1H-223K1	1	332102235R1
C8663	CD C	UCD1E221MNL1GS	1	396652217R2
C8664	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8669	CD C	UCD1A471MNL1GS	1	396634717R2

C8675	CHIP ELECT C	CEWX4V-100M	1	3981G1017R2
C8676	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8680	CD C	UCD1A471MNL1GS	1	396634717R2
C8681	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8682	C-CERA C	CK725B1H-223K1	1	332102235R1
C8683	CD C	UCD1E221MNL1GS	1	396652217R2
C8684	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8691	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8692	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8698	C-CERA C	CK725B1H-102K1	1	332101025R1
C8699	C-CERA C	CK725B1H-102K1	1	332101025R1
C8701	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8702	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8703	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8704	CHIP ELECT C	CEWX50V-4.7M	1	398180477R2
C8705	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8706	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8707	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8708	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8709	CHIP ELECT C	CEWX4V-220M	1	3981G2217R2
C8710	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8801	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8802	CHIP ELECT C	CEWX4V-22M	1	3981G2207R2
C8803	C-CERA C	CK725F1A-105Z1	1	332181050R1
C8804	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8805	C-CERA C	CK725B1H-102K1	1	332101025R1
C8806	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8807	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8808	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8809	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8810	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8811	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8812	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8813	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8814	C-CERA C	CK725F1E-104Z1	1	332161040R1
C8901	C-CERA C	CC725CH1H-101J1	1	342101014R1
C8902	C-CERA C	CC725CH1H-101J1	1	342101014R1
C8903	C-CERA C	CC725CH1H-101J1	1	342101014R1
C8904	C-CERA C	CC725CH1H-101J1	1	342101014R1
C8905	C-CERA C	CC725CH1H-101J1	1	342101014R1
C8906	C-CERA C	CC725CH1H-101J1	1	342101014R1
C8919	C-CERA C	CC725CH1H-220J1	1	342102204R1
C8920	C-CERA C	CC725CH1H-220J1	1	342102204R1
C8921	C-CERA C	CC725CH1H-220J1	1	342102204R1
C8922	C-CERA C	CC725CH1H-220J1	1	342102204R1
C8923	C-CERA C	CC725CH1H-220J1	1	342102204R1
C8924	C-CERA C	CC725CH1H-220J1	1	342102204R1
R8001	C-R NET	RM7LJ103X04	1	43484710304R2
R8002	C-CARBON R	RN72K1J-103JE	1	435031034R1
R8003	C-CARBON R	RN72K1J-103JE	1	435031034R1
R8004	C-CARBON R	RN72K1J-103JE	1	435031034R1
R8005	C-CARBON R	RN72K1J-330JE	1	435033304R1
R8006	C-CARBON R	RN72K1J-103JE	1	435031034R1
R8007	C-R NET	RM7LJ330X04	1	43484733004R2
R8009	C-R NET	RM7LJ220X04	1	43484722004R2
R8010	C-R NET	RM7LJ220X04	1	43484722004R2
R8011	C-R NET	RM7LJ220X04	1	43484722004R2
R8012	C-R NET	RM7LJ220X04	1	43484722004R2
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R8014	C-R NET	RM7LJ220X04	1	43484722004R2
R8015	C-CARBON R	RN72K1J-103JE	1	435031034R1
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R8037	C-CARBON R	RN72K1J-103JE	1	435031034R1
R8038	C-CARBON R	RN72K1J-471JE	1	435034714R1
R8040	C-CARBON R	RN72K1J-220JE	1	435032204R1
R8041	C-CARBON R	RN72K1J-220JE	1	435032204R1
R8042	C-CARBON R	RN72K1J-220JE	1	435032204R1
R8043	C-CARBON R	RN72K1J-220JE	1	435032204R1
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R8046	C-CARBON R	RN72K1J-471JE	1	435034714R1

R8047	C-R NET	RM7LJ103X04	1	43484710304R2
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R8050	C-CARBON R	RN72K1J-103JE	1	435031034R1
R8051	C-R NET	RM7LJ330X04	1	43484733004R2
R8052	C-CARBON R	RN72K1J-103JE	1	435031034R1
R8053	C-CARBON R	RN72K1J-750JE	1	435037504R1
R8054	C-CARBON R	RN72K1J-750JE	1	435037504R1
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R8060	C-CARBON R	RN72K1J-103JE	1	435031034R1
R8062	C-R NET	RM7LJ220X04	1	43484722004R2
R8063	C-R NET	RM7LJ220X04	1	43484722004R2
R8066	C-CARBON R	RN72K1J-103JE	1	435031034R1
R8067	C-CARBON R	RN72K1J-103JE	1	435031034R1
R8070	C-CARBON R	RN72K1J-272JE	1	435032724R1
R8071	C-CARBON R	RN72K1J-272JE	1	435032724R1
R8072	C-CARBON R	RN72K1J-103JE	1	435031034R1
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R8075	C-CARBON R	RN72K1J-680JE	1	435036804R1
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R8079	C-CARBON R	RN72K1J-330JE	1	435033304R1
R8081	C-CARBON R	RN72K1J-103JE	1	435031034R1
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R8326	C-CARBON R	RN72K1J-473JE	1	435034734R1
R8334	C-CARBON R	RN72K1J-222JE	1	435032224R1
R8335	C-CARBON R	RN72K1J-222JE	1	435032224R1
R8341	C-CARBON R	RN72K2E-100JE	1	435221004R1
R8401	C-R NET	RM7LJ220X04	1	43484722004R2
R8402	C-CARBON R	RN72K1J-220JE	1	435032204R1
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R8404	C-CARBON R	RN72K1J-220JE	1	435032204R1
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R8424	C-R NET	RM7LJ220X04	1	43484722004R2
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R8429	C-CARBON R	RN72K1J-220JE	1	435032204R1
R8431	C-CARBON R	RN72K1J-472JE	1	435034724R1
R8432	C-CARBON R	RN72K1J-220JE	1	435032204R1
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R8444	C-CARBON R	RN72K1J-000JE	1	435030004R1
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R8502	C-CARBON R	RN72K1J-330JE	1	435033304R1
R8503	C-CARBON R	RN72K1J-330JE	1	435033304R1
R8504	C-R NET	RM7LJ330X04	1	43484733004R2
R8505	C-R NET	RM7LJ330X04	1	43484733004R2
R8506	C-CARBON R	RN72K1J-120JE	1	435031204R1
R8507	C-R NET	RM7LJ330X04	1	43484733004R2
R8508	C-R NET	RM7LJ330X04	1	43484733004R2
R8509	C-R NET	RM7LJ330X04	1	43484733004R2
R8510	C-R NET	RM7LJ330X04	1	43484733004R2

R8511	C-R NET	RM7LJ330X04	1	43484733004R2
R8512	C-R NET	RM7LJ330X04	1	43484733004R2
R8513	C-R NET	RM7LJ330X04	1	43484733004R2
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R8517	C-CARBON R	RN72K1J-101JE	1	435031014R1
R8518	C-CARBON R	RN72K1J-472JE	1	435034724R1
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R8593	C-CARBON R	RN72K1J-821JE	1	435038214R1
R8595	C-CARBON R	RN72K1J-392JE	1	435033924R1
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R8643	C-CARBON R	RN72K1J-562JE	1	435035624R1
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P3805B	SOCKET	NSCT-10P1025	1	25051235
P8002B	SOCKET	NSCT-15P1030	1	25051240
P8011	SOCKET	NSCT-4P2238	1	25052341
P8201	SOCKET	CSS5019-0311F	1	25053198R2
P8302	SOCKET	CSS5019-0311F	1	25053198R2
P8501	SOCKET	CSS5019-0311F	1	25053198R2
P8601	SOCKET	CSS5019-0311F	1	25053198R2
P8702	SOCKET	NSCT-8P2242	1	25052345

PACKING PROCEDURE PARTS LIST

REF. NO.	PART NAME	DESCRIPTION	Q`TY	PART NO. (SN)	REMARKS
A600	SHEET	.	1	29095906	
A602	TAPE	(SEROHAN)NITTO NO.29	1	29110149	
A603	SHEET	T0.515*1300*900	1	29096066	
A604	POLY BAG	(W1020xD770)	1	29100253	
A606	TAPE	(SEROHAN)NITTO NO.29	1	29110149	
A607	LABEL	(RECYCLE)C	1	29364916	<SA805>
A608	PAD	AS	1	29092367	[U]
A608	PAD	AS	1	29092384	[M]
A610	CARTON	805(B)DC	1	29054703A	[U], (B), <DC>
A610	CARTON	805(B)DC	1	29054782A	[M], (B), <DC>
A610	CARTON	805(S)DC	1	29054704A	[U], (S), <DC>
A610	CARTON	805(S)DC	1	29054808	[M], (S), <DC>
A610	CARTON	805(B)MP	1	29054705A	[U], (B), <MA, MP
A610	CARTON	805(B)MP	1	29054789A	[M], (B), <MA, MP
A610	CARTON	805(S)MP	1	29054706A	[U], (S), <MA, MP>
A610	CARTON	805(S)MP	1	29054809	[M], (S), <MA, MP
A610	CARTON	805(G)MT	1	29054707A	[U], <DT, MK, MQ,
A610	CARTON	805(G)MT	1	29054840	[M], <DT, MK, MQ,
A610	CARTON	SA805(G)MR	1	29054718A	[U], <SA805>
A610	CARTON	SA805(G)MR	1	29054850	[M], <SA805>
A612	LABEL	(CARTON) UDT	2	29363757	[U], <DT>
A612	LABEL	(CARTON) UMK	2	29364888	[U], <MK>
A612	LABEL	(CARTON) UMQ	2	29364889	[U], <MQ>
A612	LABEL	(CARTON)UMA	2	29364890	[U], <MA>
A614a	UPC LABEL	.	1	29364871	[U], (B), <DC>
A614a	UPC LABEL	.	1	29390038	[M], (B), <DC>
A614a	UPC LABEL	.	1	29364872	[U], (S), <DC>
A614a	UPC LABEL	.	1	29390053	[M], (S), <DC>
A614a	EAN LABEL	.	1	29364863	[U], (B), <MP, MA
A614a	EAN LABEL	TX-SR805(B)MMP	1	29390056	[M], (B), <MP>
A614a	EAN LABEL	TX-SR805(B)MMA	1	29390231	[M], (B), <MA>
A614a	EAN LABEL	.	1	29364864	[U], (S), <MP, MA>
A614a	EAN LABEL	TX-SR805(S)MMP	1	29390057	[M], (S), <MP>
A614a	EAN LABEL	TX-SR805(S)MMA	1	29390232	[M], (S), <MA>
A614a	EAN LABEL	.	1	29364865	[U], <DT, MK, MQ,
A614a	EAN LABEL	TX-SR805(G)MDT	1	29390235	[M], <DT>
A614a	EAN LABEL	TX-SR805(G)MMK	1	29390236	[M], <MK>
A614a	EAN LABEL	TX-SR805(G)MMQ	1	29390234	[M], <MQ>
A614a	EAN LABEL	TX-SR805(G)MMT	1	29390233	[M], <MT>
A614a	EAN LABEL	.	1	29364866A	[U], <SA805>
A614a	EAN LABEL	805(G)	1	29390254	[M], <SA805>
A620	CARTON	(ACC)	1	29054767	[U]
A620	CARTON	(ACC)	1	29054470	[M]
A622	PP TAPE	W48 OPP TAPE	1	29110148	
A624	STAPLE	FUKAN-BARI(1000KO)	4	282321	
A803	POLY BAG	w250xd350	1	29100250	
A810	POLY BAG	w250xd350	1	29100250	<DC, MP>
A811	INS MANUAL	En(TX-SR805/875)	1	29344449C	<DC, MA, MP, DT,
A813	INS MANUAL	U2FrEs(TX-SR805/875)	1	29344450C	<DC, MP>
A815	INS MANUAL	U2ItDe(TX-SR805/875)	1	29344451A	<MP>
A817	INS MANUAL	U2NlSv(TX-SR805/875)	1	29344452A	<MP>
A818	INS MANUAL	En(TX-SA805/875)	1	29344531A	<SA805>
A819	INS MANUAL	Ct(TX-SR805/875)	1	29344453A	<DT, MQ, MT>
A820	INS MANUAL	U9(RC-687M-692M)	1	29344467	
A821	INS MANUAL	Cs(TX-SA805/875)	1	29344454A	<SA805>
A825	INS MANUAL	En(QSS TX-SR805/875)	1	29344456	
A827	INS MANUAL	Cs(QSS TX-SA805/875)	1	29344457A	<SA805>
A832	INS MANUAL	U3EnFrEs(XM/SIRIUS805/875/9	1	29344530	<DC>
A833	INST SHEET	En(XM RADIO)	1	29355602	<DC>
A835	REMO CON	RC-690M	1	24140690	
A840	ANT COIL	NMA-3057	1	232140	<DC, MA, MP, DT,
A842	FM ANT AS	Type W	1	292191	<DC, MA, MP, DT,
A844	BATTERY	R6/AA(UM-3)	3	3010194	
A844 or	BATTERY	R6/AA(UM-3)	(3)	3010054	
A848	POLY BAG	t0.1*70*100	1	29100217A	
A852	LABEL	(SP CABLE)	1	29363059A	
A854	HANDBILL	(DS-A2)US	1	29380150	<DC>
A854	HANDBILL	(DS-A2)EU	1	29380151	<MP>
A854	HANDBILL	(DS-A2)AUS	1	29380152	<MA>
A856	WRNTY CARD	(ONKYO)	1	29365102A	<DC>
A856	WRNTY CARD	MGQ	1	29365099A	<MQ>
A856	WRNTY CARD	(ONKYO-CH)	1	29365098B	<SA805>
A867	INST SHEET	U3EnFrEs(EZ Sync 805series)	1	29355647B	<DC>
A868	INST SHEET	U9(VIERA Link 805Series)	1	29355648B	<MA, MP, DT, MK,
A872	INST SHEET	U10(HUDSON VCR)	1	29355657	
A883	INST SHEET	U10(Remocon 805series)	1	29355664	
P901	AC CORD	AS-UC-2	1	253301VOL	!, <DC, DT>
P901	AC CORD	AS-SAA	1	253391VOL	!, <MA>
P901	AC CORD	AS-BS	1	253425KAW	!, <MQ>
P901 or	AC CORD	AS-BS	(1)	253425YUN	!, <MQ>
P901	AC CORD	AS-CEE-3	1	253298KAW	!, <MP, MK, MT>
P901	AC CORD	AS-CCC	1	253358VOL	!, <SA805>
U016	MIC AS	MIC-5000	1	1B068MIC	

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